OFFICE OF THE ATTORNEY GENERAL
STATE OF ILLINOIS

Lisa Madigan
ATTORNEY GENERAL

April 19, 2004

The Honorable Dorothy Gunn
Illinois Pollution Control Board
State of Illinois Center
100 West Randolph
Chicago, Illinois 60601

Re: ***People v. Jersey Sanitation Corporation***
PCB No. 97-2

Dear Clerk Gunn:

Enclosed for filing please find the original and five copies of a NOTICE OF FILING, COMPLAINANT'S REQUEST FOR WAIVER OF SECTION 101.302(k) PAGE LIMIT REQUIREMENT and COMPLAINANT'S POST-HEARING BRIEF in regard to the above-captioned matter. Please file the original and return a file-stamped copy of the document to our office in the enclosed self-addressed, stamped envelope.

Thank you for your cooperation and consideration.

Very truly yours,

Jane E. McBride
Environmental Bureau
500 South Second Street
Springfield, Illinois 62706
(217) 782-9031

JEM/pp
Enclosures

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

PEOPLE OF THE STATE OF ILLINOIS,	)	
	)	
Complainant,	)	
	)	
v.	)	**PCB NO. 97-2**
	)	**(Enforcement)**
JERSEY SANITATION CORPORATION, an Illinois corporation,	)	
	)	
Respondent.	)	

NOTICE OF FILING

To: Stephen F. Hedinger
Attorney at Law
2601 South Fifth Steet
Springfield, IL 62703

PLEASE TAKE NOTICE that on this date I mailed for filing with the Clerk of the Pollution Control Board of the State of Illinois, COMPLAINANT'S REQUEST FOR WAIVER OF SECTION 101.302(k) PAGE LIMIT REQUIREMENT and COMPLAINANT'S POST-HEARING BRIEF, copies of which are attached hereto and herewith served upon you.

Respectfully submitted,

PEOPLE OF THE STATE OF ILLINOIS

LISA MADIGAN,
Attorney General of the
State of Illinois

MATTHEW J. DUNN, Chief
Environmental Enforcement/Asbestos
Litigation Division

BY: _____
JANE E. McBRIDE
Assistant Attorney General
Environmental Bureau

500 South Second Street
Springfield, Illinois 62706
217/782-9031
Dated: April 19, 2004

CERTIFICATE OF SERVICE

I hereby certify that I did on April 19, 2004, send by First Class Mail, with postage thereon fully prepaid, by depositing in a United States Post Office Box a true and correct copy of the following instruments entitled NOTICE OF FILING, COMPLAINANT'S REQUEST FOR WAIVER OF SECTION 101.302(k) PAGE LIMIT REQUIREMENT and COMPLAINANT'S POST-HEARING BRIEF

To: Mr. Stephen Hedinger
Hedinger Law Office
2601 South Fifth Street
Springfield, Illinois 62703

and the original and ten copies by First Class Mail with postage thereon fully prepaid of the same foregoing instrument(s):

To: Dorothy Gunn, Clerk
Illinois Pollution Control Board
State of Illinois Center
Suite 11-500
100 West Randolph
Chicago, Illinois 60601

A copy was also sent by First Class Mail with postage thereon fully prepaid

To: Carol Sudman
Hearing Officer
Pollution Control Board
1021 N. Grand Avenue East
Springfield, Illinois 62794

Jane E. McBride
Assistant Attorney General

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

PEOPLE OF THE STATE OF ILLINOIS,	)	
	)	
Complainant,	)	
	)	
vs.	)	PCB No. 97-2
	)	
JERSEY SANITATION CORPORATION, an Illinois corporation,	)	
	)	
	)	
Respondent.	)	

COMPLAINANT'S REQUEST FOR WAIVER OF SECTION 101.302(k) PAGE LIMIT REQUIREMENT

NOW COMES Complainant, PEOPLE OF THE STATE OF ILLINOIS by LISA MADIGAN, Attorney General of the State of Illinois, and requests that the Section 101.302(k) , 35 Ill. Adm. Code 101.302(k), page limit requirement of 50 pages be waived for Complainant's post-hearing brief. In support of this request, Complainant states the following:

1. This enforcement proceeding concerned numerous allegations of violations spanning thirteen years. The allegations concern numerous operating violations as well as allegations pertinent to closure requirements. The issues include the appropriateness of the landfill's groundwater monitoring plan, the mandates of the landfill's existing permit, and the necessity of a proper groundwater assessment and, potentially, development of a corrective action plan to address groundwater exceedences at the landfill. The extent of evidence presented in this matter, which must be presented in the context of the various permit requirements applicable to this facility over the years, requires and merits discussion and argument in a format that exceeds the 50-page limit.

2. This proceeding concerns allegations contained within Complainant's second amended complaint. The second amended complaint originally consisted of 9 counts. One count, Count 9, was struck pursuant to the Illinois Pollution Control Board's ("Board's") order

entered in this matter on April 4, 2002.

3. The eight remaining counts of the second amended complaint concern numerous allegations of violations that have occurred over a period of thirteen (13) years.

4. The parties stipulated to the admission of 50 exhibits. These exhibits date back to 1973, but also include documents generated as recently as September 2003. Another 20 exhibits were introduced by the Complainant, and additional exhibits were introduced by the Respondent.

5. During the duration of this enforcement action, Jersey Sanitation Corporation filed an appeal of Permit No. 1999-209-SP. That appeal resulted in a Board order that struck certain special conditions pertinent to the landfill's groundwater monitoring plan.

6. Much of the hearing in this matter was devoted to testimony regarding the existing groundwater monitoring plan, specifically in light of the recent permit appeal and the fact that exceedences have been detected in the downgradient monitoring wells at the landfill since as early as 1991 and that are continuing to date. The magnitude of the exceedences for some parameters has increased.

7. Testimony regarding groundwater issues was extensive, as is the list of exhibits pertinent to groundwater. Complainant's brief is 138 pages long. The first 70 pages of the brief are devoted to the groundwater issues alone.

WHEREFORE, Complainant respectfully requests that the Board and Hearing Officer waive the requirements of Section 101.302(k) for Complainant's post-hearing brief.

Respectfully submitted,

PEOPLE OF THE STATE OF ILLINOIS,
ex rel. LISA MADIGAN, Attorney General
of the State of Illinois

MATTHEW J. DUNN, Chief
Environmental Enforcement Division

BY: _____
JANE E. MCBRIDE
Assistant Attorney General

500 South Second Street
Springfield, Illinois 62706
(217) 782-9031

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

PEOPLE OF THE STATE OF ILLINOIS,	)	
	)	
Complainant,	)	
	)	
vs.	)	**PCB No. 97-2**
	)	
JERSEY SANITATION CORPORATION, an Illinois corporation,	)	
	)	
	)	
Respondent.	)	

COMPLAINANT'S POST-HEARING BRIEF

NOW COMES Complainant, PEOPLE OF THE STATE OF ILLINOIS (hereinafter, the "Complainant") by LISA MADIGAN, Attorney General of the State of Illinois, and at the request of the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ("Illinois EPA"), by and through its attorneys, file its post-hearing brief in this matter.

TABLE OF CONTENTS

performance of a groundwater assessment, and development and implementation of a corrective action plan, as well as ongoing maintenance of the landfill so as to meet all post-closure requirements (including submission of biennial cost estimates), are technically practicable and economically reasonable for the Jersey Sanitation Landfill Corporation.

5. Prior to 1995, Respondent made little progress in improving conditions and compliance with applicable regulations at the landfill. Respondent has taken steps to correct a portion of the violations cited in the instant matter, albeit not in a timely manner. However, no steps have been taken to bring the landfill into compliance with groundwater requirements and to correct violation of Section 12(a) of the Act, 415 ILCS 5/12(a). 129

B. Penalty Factors, Section 42(h of the Act, 415 ILCS 5/42(h) 130

1. The gravity of the Respondent's violations has been significant, as has been the duration. 131

2. Respondent has not been diligent in addressing groundwater requirements , financial assurance requirements and landfill contour requirements, and was not diligent is addressing uncovered refuse, leachate, gas releases and Section 12(a) violations from 1989 until 1994. RSC, Inc, an entity that appears to be maintaining the Jersey Sanitation Corporation Landfill free of charge, has been diligent in maintaining the landfill since 1995. 132

3. With regard to economic benefit, Respondent has benefitted from the inappropriate advantage gained by avoiding the cost associated with fully funding its financial assurance fund, and it also benefitted from avoiding the cost of a groundwater assessment. 136

4. A civil penalty in the amount of $65,000 will serve to deter further violations by the violator and to otherwise aid in enhancing voluntary compliance with this Act by the violator and any other persons similarly subject to the Act 137

5. Respondent was issued an administrative citation for two of the violations documented by the Illinois EPA inspector at the time of the January 23, 1991 inspection. Respondent paid the civil penalty assessed for the citation. There have been no other adjudicated violations. 137

I. INTRODUCTION

Respondent Jersey Sanitation Corporation ("Respondent" or "Respondent Jersey" or "Respondent Jersey Sanitation" or "Respondent Jersey Sanitation Corporation") owns and controls the Jersey Sanitation Corporation Landfill ("the landfill" or "the site" or "Jersey Sanitation Landfill" or Jersey Sanitation Corporation Landfill"). Tr. at 326-342. The current shareholders acquired Jersey Sanitation Corporation and the landfill in November 1989. Tr. at 346. Respondent accepted waste at the landfill until September 17, 1992. Parties Exhibit 27. Certification of closure was accepted and acknowledged for the landfill on October 5, 1999, with the issuance of Permit No. 1999-209-SP. Parties Exhibit 42. The allegations at issue in this matter are set forth in the second amended complaint filed January 3, 2001, as it was modified by the Illinois Pollution Control Board's ("Board") order in this matter entered June 21, 2001.

The original complaint was filed in this matter on July 8, 1996. On August 14, 2000, a first amended complaint was filed in this matter. As stated above, on January 3, 2001, the second amended complaint was filed in this matter.

On November 5, 2001, Respondent Jersey Sanitation filed a motion for partial summary judgment. In an order dated April 4, 2002, the Board granted Respondent Jersey's motion for partial summary judgement, thereby finding that the Respondent did not violate stricken permit conditions A.4, C.2, C.3 and C.4. Parties Exhibit 44.

The second amended complaint consists of nine counts. Paragraphs 48 through 56, paragraph 59 as it pertains to permit condition C.4, and paragraphs 64 and 65 of Count IV are the subject of the Board's order granting Respondent's motion for partial summary judgement and pertain to the stricken permit conditions and, therefore, are no longer at issue in this proceeding. Paragraphs 58 through 62 of Count IV pertain to permit condition C.5, which was

not stricken, and section 807.524 of the Board's Waste Disposal Regulations, 35 Ill. Adm. Code 807.524. The allegations contained within paragraphs 58 through 62, as they pertain to permit condition C.5 and 35 Ill. Adm. Code 807.524, are not impacted by the Board's previous order and continue to be viable allegations in this proceeding, and therefore, will be addressed in this brief. The Board's previous order also concerned Count IX in its entirety and, therefore, Count IX is no longer at issue in this matter and will not be addressed in this brief.

Citation to the transcript shall be identified as follows. For the portion of the hearing that was conducted on September 23 and 24, 2003, the transcript is referenced as "Tr. at [page number]". For the continuance of the hearing conducted on January 13, 2004, the transcript is identified as follows: "Tr. for January 13, 2004 hearing date at [page number]".

The parties stipulated to admissibility and entry of 50 exhibits, identified as Parties Exhibits 1-50. These exhibits include, but are not limited to, the reports of the inspections conducted since the time of the initial allegation of violation in this matter and the landfill's permit applications and permits. Exhibits offered independently by the Respondent and Complainant were also admitted in this matter. These exhibits are identified as "Complainant's Exhibits" and "Respondent's Exhibits".

A. Objections

1. Objection to Continuance of Hearing

Respondent was granted a continuance of the hearing (Tr. at 214-220), based on its claim that information contained in Complainant's Exhibits 16 was new information that Respondent was unfamiliar with, and that it was a document Respondent had only first received copies of the Friday prior to the hearing. Respondent claimed it required additional time to review the information with its opinion witness, and that it desired to have an opportunity to recall this witness at a later date to testified regarding the exhibit.

A description as to exactly what Complainant's Exhibit 16 is appears in the transcript on pages 270-276 (Tr. at 270-276), and also in numerous other places throughout the hearing transcript. The exhibit was compiled by Karen Nelson, who was employed as the Illinois EPA's regional geologist for the Springfield Region from approximately 1986 until the year 2001 when she moved into another position with the Illinois EPA. Tr. at 221-222. She was identified as Complainant's groundwater opinion witness in this matter, in December of 2000. Complainant's Exhibit 17. Ms. Nelson described the data contained in the exhibit as a compilation, or tabulation, containing the available results of groundwater samples from the landfill. She testified that much of the data came from the Illinois EPA's data base of sample results submitted by the facility itself. The tabulation also included any sample results obtained by the Illinois EPA. The Illinois EPA's sample results had been previously made available to Respondent. As is obvious from the cover letters that constitute the first page of Parties Exhibit 49 and 50, which are reports of a Illinois EPA sampling event at the landfill on April 9, 2003, this information had been previously transmitted to the Respondent.

It is Complainant's position, stated at hearing, that none of the data contained within the table was unfamiliar to the Respondent. Further, the exhibit was provided to the Respondent prior to hearing. As Ms. Nelson testified, the conclusions contained in the exhibit consisted solely of her simple review of the available data. Also, her conclusion with regard to the appropriateness of monitoring well G103 is an issue that has been raised with the Respondent since 1989, and, it was a conclusion clearly set forth in Ms. Nelson's report regarding the Illinois EPA's May 17, 18, 19, 1994 sampling event at the subject landfill. This report was issued in October 24, 1994, and is included in the record of this proceeding as Parties Exhibit 34. This report was provided to Respondent in response to a request for production several months prior to hearing.

Ms. Nelson was disclosed as an opinion witness in early December 2000. There had

been ample time for Respondent to depose Ms. Nelson if there was any question as to the testimony she would be providing at hearing.

Nothing in Complainant's Exhibit 16 could be considered new information or a surprise to the Respondent. Complainant re-iterates its continuing objection to continuance of the hearing. The hearing was continued to October 17, 2004 at 9:00 a.m.

Notwithstanding and without waiving this objection, Complainant has referenced and responded to testimony presented at the continuance in the context of argument contained within this brief.

2. Objection to Opinion Witnesses Identified and Disclosed Subsequent to the Commencement of the Hearing

On October 16, 2004, toward the end of the business day, counsel for Complainant was informed by counsel for Respondent that he would be calling two new witnesses, Ken Liss and Brad Hunsberger, both of Andrews Environmental Engineering, at the continuance the next day, and he faxed to counsel for the Complainant a copy of their resumes that he intended to enter as exhibits.

In response, that evening, counsel for the Complainant left a message with counsel for Respondent's office that she intended to object to the disclosure of new witnesses at this late date in the proceeding, after commencement of the hearing and less than 24 hours before the commencement of the continuance.

At the initiation of the proceeding on October 17, 2004, counsel for Complainant again raised her objection to the continuance itself, and also objected to the late disclosure of new witnesses. In support of Complainant's objection, Complainant's Exhibits 17, 18 and 19 were admitted in the record. Complainant's Exhibit 17 is the disclosure of witnesses made by Complainant on or about December 6, 2000. Complainant's Exhibit 18 is the disclosure of witnesses made by Respondent, dated September 11, 2003. Complainant's Exhibit 19 is the

substitution and supplemental disclosure of witnesses made by Complainant on or about August 13, 2003. The discussion regarding the continuance appears on page 220 of the transcript (Tr. at 219-220):

Hearing Officer: Okay, this is what I am going to do. Obviously, both of you have worked very long and very hard to get to this stage at this hearing.

I'm going to allow him some additional time to review the document and put on a witness, if that's what the Respondents feel they need for a fair hearing.

* * *

Mr. Hedinger: May I have about a minute to give him a call and tell him – he's en route right now, and if we're not getting to him today, I'd just as soon as not have him –

Hearing Officer: Oh, I thought you were going to do all your witnesses today, and then call an additional person.

Mr. Hedinger: Well, this is the person who would be testifying on this, and that's why he's coming down, to do the best he can. But I've not had a chance – that's why I need to continue it. And he may not be the one who I end up testifying as to this.

I mean, if you want me to start his, is that where you're at? Just have him come and go ahead and go through whatever else, and then reserve that for a later date? I guess we could do that.

Hearing Officer: How much do you have for him?

Mr. Hedinger: Without this, half hour to an hour.

Hearing Officer: Well, if he's already on his way, you might as well just come and do that much. Okay?

Mr. Hedinger: All right.

Only Mr. Rathsack, no one else from Andrews Environmental Engineering, had been disclosed by Respondent in its September 11, 2003 disclosure. Based on the discussion at hearing, counsel for the Complainant was of the understanding Mr. Rathsack would be called at the time of the continuance.

In response to Complainant's objection at the initiation of the continuance on October

17, 2004, the Hearing Officer postponed the continuance to a later date to allow time for the Complainant to depose the new witnesses.

The newly identified witnesses were deposed on October 29, 2003, and the hearing was continued to January 13, 2004.

Despite the accommodation, Complainant re-iterates its objection that Respondent was allowed to call witnesses that had not been identified and disclosed previous to the commencement of the hearing in this matter.

Consistently throughout the hearing, Respondent asked for accommodation and special consideration because it had failed to conduct discovery and timely disclose witnesses. The fact it did not early-on retain appropriate witnesses and conduct depositions may have been yet another money-saving tactic on the part of this Respondent. For whatever reason Respondent did not conduct depositions nor disclose two of its witnesses, it has resulted in prejudice to the Complainant in that witnesses were identified and disclosed after the commencement of hearing.

Notwithstanding and without waiving this objection, Complainant has referenced and responded to testimony provided by these two witnesses in the context of argument contained within this brief.

3. Objection to Sur-Rebuttal Testimony of Respondent's Witness Brad Hunsberger

Toward the conclusion of the continuance conducted on January 13, 2004, Respondent was allowed to call one of its witness, Brad Hunsberger, to provide sur-rebuttal testimony in response to rebuttal testimony provided by Ms. Nelson.

Complainant raised its objection at the time that the witness was allowed, and Complainant hereby continues its objection. Procedurally, Respondent should not be able to call a witness in sur-rebuttal.

Respondent argued at hearing that allowance of the sur-rebuttal witness was justified because Ms. Nelson testimony consisted of new opinions and conclusions formerly not disclosed.

Complainant argued that Ms. Nelson's testimony was offered in response to the testimony offered by Mr. Hunsberger, as is the purpose of calling a witness in rebuttal – to rebut testimony presented by the opposing party. Tr. at 95-96. *Black's Law Dictionary, 6th Edition*, provides the following definition of rebuttal evidence: "Evidence given to explain, repel, counteract, or disprove facts given in evidence by the opposing party. That which tends to explain or contradict or disprove evidence offered by the adverse party."

Complainant also pointed out that Respondent has had plenty of time to dispose Ms. Nelson if it was uncertain as to her expected testimony. Aggravating the circumstance, however, was the fact that Respondent had not disclosed Mr. Hunsberger as a witness until after the hearing in this matter was commenced. Therefore, due to its own failure to timely and succinctly disclose witnesses and conduct discovery, Respondent was now requesting that the Hearing Officer waive accepted procedure and allow a sur-rebuttal witness.

As the party with the burden of proof, Complainant is allowed rebuttal testimony. It's not unlike the fact that it is an accepted procedure and standard practice that Complainant is allowed both an initial post-hearing brief and a reply brief. Sur-rebuttal is a matter of the discretion of the Hearing Officer. In this matter, it should not have been allowed.

Notwithstanding and without waiving this objection, Complainant has referenced and responded to testimony provided by these two witnesses in the context of argument contained within this brief.

COUNT I

B. The Respondent's violation of Section 12(a) of the Act, 415 ILCS 5/12(a), and 35 Ill. Adm. Code 620.420(a) and (d).

Section 12(a) of the Act, 415 ILCS 5/12 (1994), provides, in pertinent part, as follows:

> No person shall:
>
> a. Cause or threaten or allow the discharge of any contaminants into the environment in any State so as to cause or tend to cause water pollution in Illinois, either alone or in combination with matter from other sources, or so as to violate regulations or standards adopted by the Pollution Control Board under this Act.

The elements of this provision are (1) cause or threaten or allow the discharge of any (2) contaminants (3) into the environment (4) so as to cause or tend to cause water pollution or so as to violate regulations or standards.

Operation and the current existence of the Jersey Sanitation Landfill has resulted in water pollution contamination to the underlying groundwater. The basis for this conclusion is that results from samples collected in the upgradient wells do not show exceedences of the Class II groundwater standards. Results from samples collected at the downgradient wells indicate exceedences. Complainant's Exhibits 16 and 20. Parties Exhibit 34, pages 18-28. Tr. at 300- 302. Over time, the level of exceedence has increased. The sample results showing these exceedences consist of groundwater sampling results submitted to the Illinois EPA by the Respondent for the subject landfill, and results of groundwater sampling conducted by the Illinois EPA at the landfill. An additional basis for the conclusion that the landfill is impacting the groundwater is that results of samples collected in downgradient wells at the time of a May 1994 Illinois EPA sampling event indicated organic contaminants, commonly found in landfill (food) waste. Parties Exhibit 34, page 28. Tr at 256 (lines 1-12). Thus, at hearing, Karen Nelson, Complainant's groundwater opinion witness, concluded that the landfill is the source of contamination causing exceedences of groundwater standards. Tr at 300 through 306 and

308.

The specific results of sampling include the following. Results of sampling conducted from downgradient monitoring well G104 include exceedences of the Class II groundwater standards for arsenic, iron, total dissolved solids and sulfate. Complainant's Exhibit 16 and 20. Ms. Nelson testified that dissolved arsenic has increased over the years in sample results collected from monitoring well G104. Tr. at 274-275, lines 22-24 and 1-3; Complainant's Exhibit 16 and 20. Arsenic was not detected, or detected well below the Class I and II standards in 1994 when the Illinois EPA conducted a groundwater study of the site. Since 1994, beginning somewhere before the year 2000, sample results indicate an increase in exceedences of arsenic over the groundwater standard of 200 parts per billion at monitoring well G104.

Also at well G104, dissolved iron concentrations have increased from non-detect levels, below the Class I and Class II standards, in 1990 to 1994, to concentrations of 8000 plus ug/L from at least the year 2000 to the most recent sample results. Complainant's Exhibit 16 and 20. The Class II standard for dissolved iron is 5000 ug/L. Dissolved sulfate concentrations at G104 continue to exceed the Class II groundwater standard of 400 mg/L. Sulfate concentrations have exceeded that standard at the G104 well since 1990. Dissolved chloride concentrations at G104 exceeded the Class II standard for chloride at the time of the April 2003 Illinois EPA sampling event at the landfill. Complainant's Exhibit 16 and 20.

At monitoring well G105, concentrations of dissolved iron have greatly increased since the sampling event conducted as part of the Illinois EPA's 1994 compliance review. By the year 2000, sampling results indicate iron concentrations at a level of 39,700 ug/L and as high as 51,800 ug/L. Complainant's Exhibit 16 and 20.

Ms. Nelson also testified to results obtained from sampling at the time of the May 1994 Illinois EPA sampling event and prior to that date. She summarized the results obtained in the years 1990 through 1994, as they appeared in Parties Exhibit 34. Tr. at 252.

> . . . in G104, concentrations of TDS, which is total dissolved solids, and levels of sulfate, chloride and iron exceeded the Class II groundwater standards. pH, I believe that exceeded the Class II groundwater standard, because pH is a range from 6.5 to 9, so it, at certain times, the pH of the groundwater at Jersey Sanitation fell below that 6.5, so that would be considered an exceedence on the low side.
>
> G105 exceeded for pH, total dissolved solids, iron and chloride.
>
> G 106 exceeded for pH, total dissolved solids, and sulfate and chloride.

Ms. Nelson was asked at hearing whether any of the sample results she reviewed sent up any particular red flags of concern. TR 278 (lines 19-24), 279((1-5). Ms. Nelson testified that the results that first showed exceedences in 1990 and each exceedence since are all red flags. However, she continued, the fact that (1) the exceedences are increasing in magnitude, and (2) that concentrations of arsenic have suddenly increased above the groundwater standard levels are very significant red flags and should be investigated. Ms. Nelson added that these exceedences should have been investigated back when they were first detected. Ms. Nelson also testified that the concentrations of iron detected at monitoring well G105 are at a very high level, in fact, it is the highest level of iron concentration Ms. Nelson has ever seen at a landfill.

Geologists for both parties testifying in this matter agree that the results of samples collected at G103, one of the wells identified as an upgradient monitoring well, have not shown exceedences of the Class II groundwater quality standards. Ms. Nelson's testimony regarding the sample results obtained from G103 appears in the transcript at 274 (lines 9-14) and 301. Brad Hunsberger's, groundwater opinion witness for the Respondent, testimony as to the appropriateness of the G103 monitoring well appears on page 99 and 100 of the transcript for January 13, 2004. Further evidence that exceedences are not occurring upgradient of the site was provided by Ms. Nelson. She testified that the G102 well, a well located in proximity to G103 but screened at a shallower depth, was sampled at the time of the May 1994 Illinois EPA

sampling event and the analytical results did not show exceedences of the standards. Tr. at 257 (lines 13-20). Both geologists concluded that the G102 and G103 sample results, taken in combination, indicate no exceedences of the Class II standards and can be relied upon as an indicator that background levels do not exceed the standards for the purposes of the monitoring program. Tr. at 301, and Tr. for the January 13, 2004 hearing date at 99 - 100.

Ms. Nelson testified that she considers G102 to be the more appropriate upgradient well because it is screened at a shallower depth. *Id.* She testified that the Illinois EPA sampled G102 at the time of the May 1994 sampling event at the landfill, and it did not have any exceedences of the groundwater standards. In that she considers it to be the more appropriate upgradient well, the fact it showed no exceedences while the downgradient wells did show exceedences, formed the basis of her conclusion that the landfill was the source of the contamination that resulted in concentrations that exceeded the groundwater standards. Tr. at 257.

The G103 well is screened at a depth of 103 feet. Ms. Nelson testified that she believes this well is screened very deep compared to the levels of the screens of the downgradient wells. She believes the groundwater that is being monitored by the downgradient wells is in a shallower zone and that the upgradient well should be screened at the same level as the downgradient wells so it monitors the same zone of groundwater. She testified the G103 well, screened at a depth of 103 feet, is monitoring groundwater that is in a deep zone that is not the same zone of groundwater as is being monitored by the downgradient wells. Tr. 237 - 248.

Complainant's witness, Joyce Munie, permit section manager of the Illinois EPA Bureau of Land and a registered professional engineer with a bachelor's degree in environmental engineering and a master's degree in civil engineering (Tr at 13 (lines 19-22), Complainant's Exhibit 1), explained at hearing two forces that result in contamination to groundwater at a landfill. Tr at 26 (lines 2-9). When groundwater is contaminated, it is because there has been

a contaminant that has been released into the environment. To release a contaminant, something has to force that contaminant into the environment. At landfills, there are two ways that this occurs, either through the leachate, which is liquid that has passed through waste, or gas.

Testimony at hearing and the inspection reports admitted as parties exhibits, clearly indicate that both gases and leachate have accumulated at the landfill to such an extent as to, in the case of leachate, seep from the landfill, and in the case of gas, escape from the landfill in such concentrations as to result in a detectable odorous release.

With regard to the fact that Jersey Sanitation is producing leachate that is releasing to the environment, Rich Johnson, an Illinois EPA inspector assigned to the landfill since at least the mid-1980s until 1992, testified to repeated observations of leachate seeping and flowing from the landfill. Referencing Parties Exhibit 10, a report for his January 23, 1991 inspection of the landfill, Mr. Johnson described the leachate seep depicted in photos 10, 11 and 12 as a leachate seep that was observed flowing from the landfill to the creek. Tr. at 125 (lines 13-18) and 126 (lines 5-7). Mr. Johnson also testified to the observations he made at the time of his May 21, 1991 inspection, documented in Parties Exhibit 18. Photo 30 depicts a leachate seep flowing into the creek. Mr. Johnson described the leachate seeps observed at the time of the November 19, 1991 report, depicted in photo 10 and also in the site sketch accompanying the report. Tr at 131 (lines 17-24), Tr at 132 (lines 1-24) and Tr at 133 (lines 1-2); Parties Exhibit 21. Mr. Johnson also testified that at the time of his February 25, 1992 inspection he observed the leachate seep depicted by photo 19. Tr at 134 (lines 11-24) and Tr at 135 (lines 1-2); Parties Exhibit 25.

Charlie King, the Illinois EPA inspector assigned to the landfill from 1994 to the present, testified that he made observations of leachate seeps at the landfill at the time of the January 21 and February 17, 1994 inspections, as depicted in photos 4/5, 4/6, 4/7 and 4/10 contained in

the report of those inspections. Tr. at 162 (lines 1-17), 163 (lines 1-2), 164 (lines 6, 10-13). Tr. at 166 (lines 16-19), 168 (lines 18-23). Parties Exhibit 31. He also observed leachate streams at the time of the May 19, 1994 Illinois EPA sampling inspection. Tr. at 165 (lines 2-13). A leachate pop-out was observed on the west/northwest side of the landfill at the time of the June 6, 2000 inspection. It was located approximately 40 feet southwest of groundwater monitoring well G106. Parties Exhibit 43, page 4.

Ms. Nelson testified that she observed leachate seeps and flows at the landfill at the time of the May 17, 18 and 19, 1994 groundwater sampling inspection. The site map included with the report indicated the locations of the seeps. Tr. 262-265. Parties Exhibit 34, site sketch. At hearing, Ms. Nelson identified photos in the report that depicted leachate seeps and flows. Parties Exhibit 34, photos 0a, 1a, 16, 17, 19, 22, 23, 24. The photos included a depiction of a leachate flow that nearly reached Sandy Creek, but soaked into the ground just prior to reaching the surface water. Tr. at 264-265

In Parties Exhibit 31, on page 3 of the check-off list (item 32) and on page 12 of the narrative, Mr. King documented observations of noticeable gaseous odors emanating from the landfill in two locations. As documented in Parties Exhibit 40, at the time of the November 19, 1998 inspection it was observed that two gas vents had been installed at the landfill. Parties Exhibit 40, page 3 and 4 of the narrative. On page 5 of the narrative contained in Parties Exhibit 40, it is documented that the site description contained within a February 1997 application for supplemental permit and certification of closure included gas control vents and gas flares. The site sketch contained within Parties Exhibit 40 includes the locations of gas vents and flares. Photos 7 and 8 of the report depicts the gas flares. Both the flares were functioning at the time of the inspection, indicating they were flaring-off gas emitting from the landfill, and the "Solar Shock" device was also operating at the time of the inspection. Parties Exhibit 40, page 4 of the narrative. At the time of the June 6, 2000 inspection, documented in

a report admitted as Parties Exhibit 43, the inspector observed one of the gas vents and wells to be in satisfactory condition. It was not functioning at the time of the inspection, indicating no gas was emitting so as to trigger the "Solar Shock" device which would create a spark and thereby light the flare so that the gas would be burned off. Parties Exhibit 43 also documents the inspector's observations of the gas vent and flare northwest of the first vent and flare. The inspector observed stressed vegetation and patches of no vegetation on the north slope of the landfill. He also detected a hissing noise at the location of the gas well, or vent, that was emitting from the unit and noted that the smell of gas was prevalent. No gas flame was observed. Parties Exhibit 43, at page 3 of the narrative. On page 4 of the narrative, the inspector documented descriptions of the photos depicting the condition of the gas vents at the time of the inspection. Photo 3 shows the gas well on the top of the landfill, closest to the site gate, the large bare spot on the north slope was depicted in photo 4, and photo 5 depicts the second of the two gas wells wherein a hissing noise was emitting from the bolt plate in the lower center of the structure. Parties Exhibit 43.

Ms. Nelson testified that physical conditions such as uncovered waste and inadequate cover that allows rainwater to infiltrate the landfill and thus become contaminated, and the release of accumulations of leachate are logical circumstantial indications that leachate may also be releasing to the groundwater under the landfill and causing contamination of the groundwater. Tr at 230 (lines 6-12).

Correlating contaminant concentrations in the leachate with that of the groundwater is not something geologists readily rely upon. This is because leachate is exposed to air, and components may volatilize. The only correlation Ms. Nelson made between the leachate and the groundwater results at the landfill was that the leachate sample results indicated concentrations of iron and the leachate itself was orange in color. The orange color indicates iron. The groundwater monitoring results of downgradient well samples at the landfill have

shown exceedences of the iron standards, and in the case of G105, very high exceedences of the iron standard. Tr. at 267 (lines 9-14), Tr. at 268 (lines 1-6), Tr. at 308 (lines 17-024) and Tr. at 309 (lines 1-24).

Evidence contained within exhibits admitted in this proceeding provides further support for the conclusion that the landfill is impacting the groundwater.

The leachate and groundwater problems experienced at the subject landfill were anticipated, if the landfill operators did not take proper precautions. It was predicted that, if the operator did not properly control drainage, cover refuse and anticipate and control leachate, the landfill would likely experience leachate and groundwater problems that could result in "significant pollution of the environment and undesirable effects for the landfill installation." Parties Exhibit 1, letter of transmittal from John A. DeMonte, P.E., STS Engineers, Inc. to Ralph P. Johnson, dated April 15, 1973, transmitting a report of a subsurface investigation on the 10-acre portion of the approximately 200-acre site that became Jersey Sanitation Corporation Landfill. The 1973 subsurface investigation report was attached to and incorporated by reference in the July 18, 1989 closure and post-closure application and certification of depth cover for the Jersey Sanitation Corporation landfill. Parties Exhibit 3, referenced at Item 14 on the third page of the attachment to the permit application. The July 18, 1989 application, with subsequent additional submittals, constitute the approved plans incorporated in the landfill's Supplemental Permit No. 1989-177-SP, issued November 15, 1989. Parties Exhibit 6. Ms. Shourd testified that Respondent Jersey Sanitation Corporation purchased the landfill in November 1989. Tr. at 346 (lines 9-10).

Originally, the subsurface investigation report was part of the initial development and operation permit application, submitted by the former owner, Ralph Johnson, early in May 1973. As is obvious from the references to Cell 1 found in the first two pages of the attachment to the permit application, the landfill was opened under conditions of an emergency need for landfill

facilities in Jersey and Calhoun Counties, due to flooding.

What follows are excerpts from the subsurface investigation, completed in 1973 (Parties Exhibit 1, emphasis added):

Site Conditions

About one-third of the 10-acre site is occupied by a ravine. It is located in an area of heavy tree growth and underbrush on the northwest side. The ravine bottom is about 30 feet below the adjacent higher ground. No rock outcrops were observed in the ravine, but isolated glacial boulders may be present. The higher central ground extending to the southeast is relatively level, and under cultivation. Surface drainage flows to the ravine, and is directed to the southwest into Sandy Creek. The borings were drilled along a dirt road which is situated between the ravine and the cultivated field.

Soil Conditions

The boring shows an upper 10 to 13 feet of very stiff, brown silty clay of loessial origin. This is underlain by glacial till consisting of very stiff, silty or sandy clay containing small rock fragments. The very stiff brown upper till is underlain by a very stiff to hard gray till. **The till contains apparent lenses and pockets of sands and small gravel. It is not known whether these lenses of pervious materials are interconnected or are continuous.**

Subsurface Water

Water was observed to enter borings 2 and 3 at depths of 10 and 17.5 feet, respectively. One-half to three-quarters of an hour after drilling the water levels in borings, 1, 2 and 3 were measured depths of 10.5, 6, and 20 feet, respectively. A 33-foot length of PVC pipe was installed in bore hole #2 for use as an observation well. **Indications are that ground water flow occurs mostly near the surface of the upper brown till, and follows a southwesterly direction. Deeper continuous aquifers may be present.**

Conclusions and Recommendations

In our opinion, this site is satisfactory for use as a sanitary landfill, **provided necessary precautions are taken, and preparatory measures are carried out.** Sufficient relief exists or can be created on the site to ensure prompt surface drainage of a soil cover over the waste. We believe the soils to possess favorable ion exchange attenuation characteristics. Indications are that filtration of suspended matter can be accomplished and that long travel times will assist decomposition of organic dissolved matter associated with bacterial activity. Favorable chemical reactions can also be expected in the clay. We have estimated that passage of leachate through 10 feet of silty clay having a permeability of approximately 10^{-7} centimeters per second will render the leachate essentially innocuous. **This rate of flow is too slow to recondition the expected quantity of leachate and a collection system for leachate treatment or**

for recycling through the fill is considered necessary. Excavation of clay for cover should ensure that no less than 10 feet of underlayment of natural silty clay exists. **We recommend that significant ground water accumulation within the waste not be permitted to occur.**

* * *

Preparation of the site involving earthwork operations will be necessary prior to commencement of the landfill. **During site preparation, consideration should be given to handling the leachate which will develop from infiltration of surface water through the soil cover on the refuse. Additional infiltration of water may also occur from seepage, possible formation of springs below the landfill, or from the general rise in the water table through the base of the refuse. Provisions should be made for handling or collecting natural groundwater flow emanating from small streams. It will be necessary to either contain all leachate within the sanitary landfill site, or to collect all of this leachate and treat the liquid to make it acceptable for disposal in public areas. The quantity of leachate should be minimized by diverting surface water flow around the area of operation during the filling process. This can be accomplished by suitable grading, construction of dykes, and or excavating ditches.**

It is recommended that all existing topsoil be progressively removed as the proposed landfill areas is being prepared. The topsoil should be stockpiled for reuse upon completion of the landfill operation. The stripped surface should be inspected in order to locate the possible presence of exposed pervious materials. These exposed sand and gravel surfaces should be covered with a properly compacted clay layer having a minimum thickness of 2 feet. This layer should be placed in lifts not exceeding 9 inches in loose thickness, and compacted to at least 95 percent of Standard Proctor density in accordance with ASTM specification D698-70. The above site preparation is applicable to areas where removal of topsoil and placement of a clay liner can be accomplished above the groundwater table.

In areas where this procedure cannot be followed due to a relatively thick topsoil immediately underlain by pervious granular materials and a shallow water table, it may be necessary to place the clay liner after local dewatering and removal of upper pervious materials. **This will be required to prevent the passage of leachate into the natural groundwater system.** It is the intent of this recommendation that the compacted clay liner should have a minimum thickness of 2 feet and a low permeability to act as a barrier below all refuse to be placed in the ravine or over pervious soils exposed by excavation in the higher ground. The continuity of the underliner will be important in all areas where pervious soils would permit groundwater flow to move in a downward direction.

After placement of each day's refuse, the surface should be covered by a minimum of 6 to 8 inches of compacted inorganic clay. **This covering material should be well compacted to minimize the downward infiltration of surface water into the refuse.**

After the landfill operation has been completed in a particular area, we recommend a

minimum of 3 feet of compacted, inorganic silty clay be placed over the completed area to minimize the downward percolation of surface water and the resulting increase in the volume of leachate. **Surface grading of the landfill should be sloped to allow rapid run-off of water to avoid ponding.**

Since the area immediately adjacent to the landfill is being used and may be further developed for residential purposes after or during the landfilling operations, and since the refuse will be contained within the landfill for decomposition, it will be necessary to install vents through the landfill cover to allow the developed gases to escape. Such vents may consist of non-corroding vertical pipes composed of plastic. Provision will be required to prevent the escape of methane gas (CH4) into the nearby residence.

It is further recommended that monitoring wells be installed in shallow and deep aquifers along the southwestern boundaries of the landfill. The use of a tight clay cover and the maintenance of air-tightness will tend to promote general anaerobic conditions in the waste, and thus tend to preclude internal fires.

We understand that during initial operations waste materials will be placed in the ravine and lower portions of the site. It would be more desirable to start the placement of waste materials on the higher ground. If fill operations are started in the lower ground, surface runoff could, if unimpeded, flow towards the deposited refuse, increasing the possibility of washouts and the quantity of leachate that is developed and the amount that has to be treated. **Provision for handling runoff from the higher ground should be an integral part of the daily operation of the landfill. This will require proper grading of the area and ditching.**

Since the leachate will be concentrated in the low area, minimization of the seepage loss will be important. Perimeter dikes should be constructed of compacted silty clay to retain the leachate and prevent lateral outward movement.

Provisions should be made for the maintenance of the leachate collection and treatment facilities at the site after the completion of the landfill operations since leachate will continue to be developed for a significant amount of time following completion of operations.

Analysis of the quality of the groundwater and the well water at the nearby residence should be performed regularly during the operation of the site. It is recommended that the initial groundwater and well water quality analysis be performed prior to commencement of operations at the site to provide a basis for comparison of subsequent test results.

Regarding construction and operation of the sanitary landfill, **it should be expected that some problems may occur due to infiltration of seepage or runoff water at the base of the excavation to receive the refuse.** All seepage water which has not come in contact with the refuse should be promptly removed. It should be possible to remove this water by common sump pit and pump procedures. The cohesive material on the site may be difficult to work during wet or cold seasons. **Proper equipment should be available at the site at all times so that cover material can be installed promptly.**

> Seepage water should be removed prior to the placement of fill, where it enters areas that are over excavated for the removal of seams or layers of granular soils.

The 1973 subsurface investigation, which was perpetuated when it was included with the supplemental permit application submitted in 1989, indicated that a failure to cover refuse, control run-off and run-on, control leachate, and line the waste/surface interface, would result in "significant pollution of the environment". The report indicated shallow, surface groundwater that could readily be impacted by the landfill if preventive measures were not maintained. Documents admitted as evidence and uncontroverted testimony at hearing, clearly indicate preventive measures either were never put in place at the landfill or were not maintained so as to provide adequate protection. The report references indications that ground water flow occurs mostly near the surface of the upper brown till, and follows a southwesterly direction. It indicates deeper continuous aquifers may be present. The wells utilized for the subsurface investigation were screened at a depth (10 feet to 17.5 feet) comparable to the downgradient groundwater monitoring wells at the landfill (G104: 50.5 feet, G105: 9.7 feet, G106: 21.6 feet. Parties Exhibit 34, page 7), which are screened at a shallow depth relative to the depth of the deeper well, identified as G103 (103.5 feet) by the documentation admitted as evidence in this matter, and the testimony. The well referred to as a shallow upgradient well is identified as MW5 or G102, and it is screened at 26.5 feet. Parties Exhibit 34, page 7. A photo of the surface markers for the two wells exists in the record of this proceeding in Parties Exhibit 40, Photo 6 of Roll 276.

There is nothing in the record of this proceeding that would indicate that an underlining of clay was placed on the land prior to the application of waste and refuse. Certainly there is no indication that areas were dewatered should high water tables be encountered nor is there any evidence that any investigation was conducted regarding potential pervious materials existing at the surface where waste was to be applied and appropriately addressed. Ms. Shourd testified

that when Jersey Sanitation Landfill Corporation purchased the landfill, in November 1989, it had no equipment with which to operate the landfill. Tr. at 346 (lines 19-21). She further testified that at the time of purchase the corporation had one part-time employee operating the landfill. Tr at 347 (lines 9-15). She further testified that throughout the first year that the corporation operated the landfill, it was difficult for the corporation to find people to operate the landfill and to buy equipment. She indicated during the first year, the corporation "changed employees a lot". Tr. at 347 (lines 19-23). When asked why she purchased equipment, Ms. Shourd indicated: "In order to compact trash, haul dirt over there, and cover it up, and compact the dirt." No where did she indicate removal of topsoil and application of a clay underlining prior to the application of waste or refuse. She testified that she tried to scrape dirt off the sides of the ravine for daily cover, but that wasn't effective. Tr. at 348 (lines 16-19). Based on the testimony, it wasn't until shortly before the landfill was closed in September of 1992, that the corporation had obtained enough equipment to begin to cover the trash. At the time of the 1994 inspections, there were still large areas of uncovered refuse at the landfill and significant leachate flows. Parties Exhibits 31 and 34.

As predicted by the 1973 report, because proper controls and maintenance for drainage and leachate were not in place at the landfill, when groundwater springs emerged at the landfill, the water came in contact with the waste, and the contaminated groundwater/leachate flowed into Sandy Creek:

> "A liquid was observed flowing south of the leachate collection pond (see photos 11, 12 and 16). The liquid appeared to be groundwater originating from a bank composed of soil, tree trunks, bed springs and vehicle engines. The refuse in the bank suggested that the bank was partly filled with waste. The liquid leaving the bank left a rusty colored deposit on the bottom of the drainage ditch (see photo 26). There was also a slight sulfur odor emanating from around the flow. I followed the flow west to the point where it entered Sandy Creek. Photos 9 and 10 show the point where the leachate flow enters the creek. Before leaving the landfill, a sample of leachate was collected."

Parties Exhibit 10, page 2 of the narrative.

Evidence of Respondent's failure to install and maintain proper controls at the landfill are included in numerous exhibits that were admitted at hearing.

In Parties Exhibit 18 (May 21, 1991 inspection), on the third page of the narrative, the inspector documented his observation that the drainage channel required along the north edge of the fill is no longer present. The channel was to keep run-off water from the north out of the filled areas. Special Condition 1 of Permit 1973-44-DE indicated that the landfill operation and the filled areas are to be protected from runoff. There was no drainage channel constructed along the northern boundary of the ravine at the time of the inspection.

In Parties Exhibit 21 (November 19, 1991 inspection), on the third page of the narrative, the inspector documented his observation that Special Condition 22 of the Supplemental Permit 1989-177-SP (dated 11-15-89) indicated that surface water ditches on the north and south side of Cells 1 and 2 for conducting run-off or run-on are to be maintained on a regular schedule. No ditch had been developed at the time of the inspection on the south side of Cells 1 and 2.

In all the inspection reports through 1994, Parties Exhibits 7, 10, 18, 21, 25, 27, 31, 34, inspectors documented uncovered refuse.

Pursuant to the landfill's 1989 supplement permit, Supplemental Permit No. 1989-177-SP, issued November 15, 1989, a leachate collection system plan was supposed to be submitted to the Illinois EPA permit section by January 15, 1990. Parties Exhibit 16, page 5. The Illinois EPA did not issue approval of leachate collection system plans submitted by the Respondent until approximately December 13, 1990. Parties Exhibit 11. At the time of an Illinois EPA inspection conducted on January 23, 1991, the inspector made the observation that is the subject of the quotation appearing above, which indicated that leachate was flowing considerable distances along the surface of the landfill and flowing into the collection system from the surface, not via the pipe extruding from the landfill itself. Parties Exhibit 10, page 2 of

the narrative. At the time of the May 21, 1991 inspection, the inspector observed leachate seeps as described in Parties Exhibit 18, page 1 of the narrative. On that date, leachate was observed flowing into Sandy Creek – an off-site creek to the west of the landfill. Leachate flows and seeps were also observed at the time of the November 19, 1991 inspection (Parties Exhibit 21), the February 25, 1992 inspection (Exhibit 25), the January 21/February 17, 1994 inspection (Parties Exhibit 31), and that May 1994 Illinois EPA groundwater sampling event (Parties Exhibit 34).

Even though the landfill operators were advised in the 1973 report to install a gas vent system at the landfill, it wasn't until the time of the November 19, 1998 inspection, as documented in Parties Exhibit 40, that inspectors observed that two gas vents had been installed at the landfill. In Parties Exhibit 31, the Illinois EPA report regarding its January 21/February 17, 1994 inspection, on page 3 of the check-off list (item 32), and on page 12 of the narrative, again referencing item 32, Mr. King documented noticeable gaseous odors emanating from the landfill in two locations.

Evidence admitted at hearing and contained within the record of this proceeding that Respondent Jersey Sanitation Landfill (1) had information that indicated it was imperative that controls and practices be put in place and maintained at the landfill to address leachate, drainage and gas in order to avoid "significant pollution of the environment and undesirable effects for the landfill installation", (2) failed to install and maintain controls, and (3) allowed leachate accumulations, gas releases and drainage problems to actually occur at the landfill, supports Complainant's allegation that Respondent has and continues to cause, threaten or allow the discharge of contaminants into the environment so as to cause or tend to cause water pollution or so as to violate regulations or standards.

Information contained within a submittal entitled "groundwater monitoring narrative – supplemental permit", by Henneghan and Associates for the Jersey Sanitation Corporation

Landfill on October 10, 1991, did not contradict the 1973 subsurface investigation report. Parties Exhibit 20. Toward the end of the narrative on page 10 of the exhibit, the October 10, 1991 submittal reads:

> " . . . As stated earlier, the groundwater follows the topography of the area. This would mean that the groundwater flows from the higher elevations at the east end of the landfill to the lower elevations at the west end of the landfill."

On page 8 of the exhibit, the report reads: "The results of the monitoring indicates that the direction of the groundwater flow follows the topography of the area and most likely spring feeds surface drainage at or near bedrock . . . . Regional sources of recharge or depletion of groundwater are only minor water infiltration recharge and depletion by Sandy Creek and tributaries."

The October 1991 submittal also described the area as one of loess deposits, ranging in depth from 7 to 100 feet, underlain by bedrock, consisting of alternating limestone, claystone, siltstone and shale members, at an elevation varying from 504 to 536. The report also states that because of active melting that took place while morainic ridges were being formed, there are inclusions of water-worked material in the morainic ridge that has a principal constitute of glacial till. Because of the way the ridges were formed, they generally contain pockets, lenses and even tubes of water-sorted gravels, sands and silts. Exhibit 20, page 8.

The instant case presents issues much like the groundwater issues decided in the case of *People v. ESG Watts Inc.*, PCB 96-107 (February 5, 1998). This case concerned Watts' Taylor Ridge facility, which continued to operate at the time of the decision. In ESG Watts, PCB 96-107, monitoring results indicated exceedences of Class II standards and the Respondent had failed to perform a groundwater assessment. The factual evidence in that matter showed exceedences of sulfate, iron and manganese standards, and the Illinois EPA's test results indicated concentrations of organics, but there were no groundwater standards for

the organics detected. PCB 96-107 (February 5, 1998), slip op. at 21 and 22. The Illinois EPA's groundwater expert testified that the organic contamination detected in the wells was a result of releases from the landfill. *Id.* at 22. He also testified that landfill gas can contribute to contamination of groundwater by putting additional pressure within the landfill itself. *Id.* He testified that, in that this landfill was producing gas, this pressure increased the chances of the gas contributing to the groundwater contamination. *Id.* ESG Watts' argued that the Complainant had to prove that concentrations of contaminants of concern are not present due to natural causes. *Id.* at 34 ESG Watts argued that all three contaminants identified by complainant were naturally occurring and that concentrations of iron upgradient exceeded regulatory limits. *Id.* at 34

In its decision, the Board stated:

> ". . . However, in order to show that the exceedences were caused by background, ESG Watts has to characterize the groundwater quality upgradient of the landfill for all the three contaminants of concern. In this regard, ESG Watts has not provided any analysis of its groundwater sampling results of the upgradient wells to establish the upgradient groundwater quality for the three contaminants to show that the exceedences were not caused by the landfill. The monitoring data from the Agency's and ESG Watts' groundwater monitoring reports show that the contaminants identified in the complaint were detected in the upgradient wells and in some cases the levels for iron were above the groundwater quality standard. However, both the Agency's and ESG Watts' groundwater monitoring reports show that the concentrations of sulfate, iron and manganese were significantly higher in the downgradient wells. Thus, it is clear from the groundwater monitoring data that the landfill was impacting the underlying groundwater. In light of this, the Board finds that the exceedences of the Board's groundwater quality standards were caused by the landfill.

Id. at 34.

Based on this finding, the Board held that ESG Watts had violated Section 12(a) of the Act, and 35 Ill. Adm. Code 620.115, 620.301(a) and 620.405. *Id.* at 35 -37. In this case, the complainant had alleged violations of the groundwater standards, and specifically alleged violation of the Class I standards. The Board held that the complainant had failed to prove that the groundwater was Class I, and thus could not making a finding of violation of the Class I

standards. Since violation of the Class II standards had not been alleged, no finding was made with regarding to a violation of specific standards. *Id.* at 35 - 36.

In the matter of *People v. ESG Watts*, PCB 96-233 (February 5, 1998), again, similar groundwater issues were examined by the Board. This case concerned Watts' Mercer/Viola facility, which ceased accepting waste in September 1992 and was thereby governed by the Part 807 regulations. In Watts' PCB 96-233, the evidence showed that Watts' didn't even perform sufficient monitoring, much less attempt a groundwater assessment. The fact that Watts failed to install monitoring equipment, monitor groundwater beneath the landfill and submit monitoring reports served as the basis for the Board's finding that Watts violated Section 12(a) of the Act, 415 ILCS 5/12(a), because it operated its landfill in a manner, via these omissions, that constituted a threat to waters of the State. PCB 96-233 (February 5, 1998), slip op. at 13. The Board found the landfill to be the logical source of organic contaminants detected in monitoring samples, and noted testimony by experts that the cause of the exceedences in the groundwater were gas migration and leachate. *Id* at 14. In Watts' PCB 96-233, unlike the instant matter, evidence showed concentrations of inorganics in upgradient wells, and due to this the Board was unwilling to find that the landfill was the cause of the exceedences of the inorganic standards. *Id.*

Respondent Jersey Sanitation has caused or threatened or allowed the discharge of contaminants. Respondent Jersey Sanitation Landfill, admitted via the testimony of Pam Shourd, that it owned and operated Jersey Sanitation Landfill at all times pertinent to the allegations of violation of Section 12(a) and 35 Ill. Adm. Code 620.420(a) and (d). Respondent operated the landfill from November 1989 until the landfill ceased accepting waste in September 1992. Since September 1992, Respondent Jersey Sanitation Corporation has continued to own the landfill and is thereby responsible for compliance with all closure and post-closure requirements, which includes compliance with the Act, the Illinois Groundwater

Protection Act, and the Part 807 waste disposal regulations.

Respondent Jersey Sanitation has caused or threatened or allowed the discharge of contaminants into the environment so as to cause or tend to cause water pollution or so as to violate regulations or standards. Evidence contained within exhibits admitted in this proceeding, and presented at hearing, shows that there are no exceedences of the Class II groundwater standards in the groundwater monitoring wells considered to be upgradient of the landfill. There are exceedences in the downgradient monitoring wells, and sample results for the contaminants of concern that are exceeding have shown increasing concentrations over time. Arsenic, which was not detected above the Class II groundwater standards at the time of a 1994 Illinois EPA sampling event, has been detected at concentrations above the Class II standards since the year 2000. Arsenic concentrations above the Class II standards have not been detected in the upgradient wells. Respondent Jersey Sanitation has not contested their own sample results, nor the results of sampling obtained by the Illinois EPA. These results, and thus the exceedences alleged in Count I of the Complainant, are contained in Parties Exhibits 34, Parties Exhibit 50 as well as in Complainant's Exhibits 16 and 20 and are compared therein to the applicable Class II groundwater standards.

Further, at the time of the 1994 Illinois EPA sampling event, the sample results indicated concentrations of organic landfill wastes, including components of food waste that is commonly found associated with landfills.

Evidence contained within the record of this proceeding that (1) Respondent Jersey Sanitation possessed information that indicated it was imperative that controls and practices be put in place and maintained at the landfill to address leachate, drainage and gas in order to avoid "significant pollution of the environment and undesirable effects for the landfill installation", and that (2) Respondent in many instances either failed to install controls or failed to adequately and properly maintain controls, and, thereby allowed leachate accumulations,

gas releases and drainage problems to actually occur at the landfill, supports Complainant allegation that Respondent has and continues to cause, threaten or allow the discharge of contaminants into the environment so as to cause or tend to cause water pollution or so as to violate regulations or standards.

Further, Sections F and G below, incorporated herein by reference, set forth testimony and exhibits contained within the record of this proceeding that Respondent Jersey Sanitation Landfill has failed, despite permit requirements and demands to do so, to evaluate its groundwater monitoring program and conduct a groundwater assessment so as to confirm the source of exceedences at the landfill and develop a plan of corrective action. Similar to the factual basis of decision issued by the Board in *People v. ESG Watts*, PCB 96-233 (February 5, 1998), wherein the fact that Respondent Watts failed to install monitoring equipment, monitor groundwater beneath the landfill and submit monitoring reports served as the basis for the Board's finding that Watts violated Section 12(a) of the Act, 415 ILCS 5/12(a), because it operated its landfill in a manner, via these omissions, that constituted a threat to waters of the State (PCB 96-233 at 13), Respondent Jersey Sanitation's failure to evaluate its groundwater program and conduct a groundwater assessment supports the allegation of a violation of Section 12(a) in the instant matter.

In that it is uncontested that concentrations of contaminants have been detected in monitoring well samples that exceed Class II standards, the fourth element of Section 12(a) has been met in that discharges from the Jersey Sanitation Corporation landfill have resulted in violation of the Board's groundwater standards.

Respondent has violated section 12(a) of the Act, 415 ILCS 5/12(a), and 35 Ill. Adm. Code 620.420(a) and (d).

C. **The Respondent's violation of Section 12(a) and 35 Ill. Adm. Code 620.115 and 620.405.**

Section 620.115 of the Board's groundwater regulations, 35 Ill. Adm. Code 620.115, provides as follows:

> Prohibition
>
> No person shall cause, threaten or allow a violation of the Act, the IGPA or regulations adopted by the Board thereunder, including but not limited to this Part.

The Board held as follows in the case of *People v. ESG Watts Inc.*, PCB 96-107 (February 5, 1998), slip op at 37:

> "Section 620.115 of the Board's groundwater protection standards prohibits any person from violating the Act or the Board's groundwater quality standards. Violations of the Board's groundwater quality standards may constitute a violation of Section 12(a) of the Act. See *International Union et al. v. Caterpillar, Inc.* (August 1, 1996), PCB 94-240, aff'd, Ill. App. Ct. No. 3-96-0931 (3rd Dist.) (September 10, 1997) (unpublished order under Supreme Court Rule 23). As noted previously, the concentrations of sulfate and iron in groundwater underlying the landfill have exceeded the class II groundwater quality standard set forth at 35 Ill. Adm. Code 620.420 from November 12, 1991 to August 25, 1994. The Board finds that Watts has allowed the discharge of contaminants into the environment in violation of Board regulations and standards and has caused water pollution. Accordingly, the Board finds ESG Watts in violation of Section 12(a) of the Act and 620.115.

The results of sampling conducted at the Jersey Sanitation Landfill's downgradient well have shown exceedences of Class II groundwater standards. In that the upgradient wells have not shown exceedences, it is apparent that the source of the contamination is the landfill. Consistent with the decision in PCB 96-107, the fact of the exceedences constitutes a violation of Section 12(a) of the Act, 415 ILCS 5/12(a), and thus Respondent is in violation of Section 12(a) of the Act and 35 Ill. Adm. Code 620.115.

Section 620.405 of the Board's groundwater regulations, 35 Ill. Adm. Code 620.405 provides as follows:

> General Prohibitions Against Violations of Groundwater Quality

Standards

No person shall cause, threaten or allow the release of any contaminant to groundwater so as to cause a groundwater quality standard set forth in this Subpart to be exceeded.

In the matter of *People v. ESG Watts Inc.*, PCB 96-107 (February 5, 1998), slip op at 36, the Board found that, in that the Agency's groundwater monitoring reports indicated that the sampling results exceeded the Class II groundwater quality standards for sulfate and iron, the Board accordingly found that Respondent ESG Watts violated Section 620.405, by causing the release of contaminants into groundwater so that the concentrations of sulfate and iron in groundwater underlying the landfill have exceeded the Class II groundwater standards set forth at 35 Ill. Adm. Code 620.420 since the dates of the Agency sampling events.

Results of sampling conducted at the Jersey Sanitation landfill's downgradient monitoring wells, obtained by both the Respondent and the Illinois EPA, indicate exceedences of the groundwater standards as set forth in Parties Exhibits 34 and 50, as well as Complainant's Exhibits 16 (including the chart setting forth allegations of exceedences in Count I of the Second Amended Complaint, which constitutes that last several pages of this exhibit) and 20. As set forth above, results of sampling of the upgradient wells at the landfill do not indicate an exceedence of the Class II standards, but the downgradient wells do. These results are uncontested. As stated above, Ms. Nelson has concluded the landfill is the source of the contamination. Respondent has violated Section 12(a) of the Act, 415 ILCS 5/12(a), and 35 Ill. Adm. Code 620.115 and 405, by causing or allowing the release of a contaminants to groundwater so as to cause groundwater standards to be exceeded.

D. <u>The Respondent's violation of 35 Ill. Adm. Code 620.301.</u>

Section 620.301 of the Board's groundwater quality regulations, 35 Ill. Adm. Code 620.301, provides, in pertinent part, as follows:

General Prohibition Against Use Impairment of Resource Groundwater

a) No person shall cause, threaten or allow the release of any contaminant to a resource groundwater such that:

1) Treatment or additional treatment is necessary to continue an existing use or to assure a potential use of such groundwater; or

2) An existing or potential use of such groundwater is precluded.

Contaminant concentrations that constitute exceedences of the Board's Class II groundwater quality standards that are increasing in magnitude, and results of sampling collected since or before the year 2000 indicating concentrations of arsenic above the Board's Class II groundwater quality standards, are significant releases to the environment for which treatment would be necessary to continue an existing use or to assure a potential use of the impacted groundwater, or that may result in an existing or potential us of such groundwater to be precluded.

The specific results of sampling at the Jersey Sanitation Landfill include the following. Results of sampling conducted from downgradient monitoring well G104 include exceedences of the Class II groundwater standards for arsenic, iron, total dissolved solids and sulfate. Complainant's Exhibit 16 and 20. Ms. Nelson testified that dissolved arsenic has increased over the years in sample results collected from monitoring well G104. Tr. at 274-275, lines 22-24 and 1-3; Complainant's Exhibit 16 and 20. Arsenic was not detected, or detected well below the Class I and II standards in 1994 when the Illinois EPA did a groundwater study of the site. Since 1994, beginning somewhere before the year 2000, sample results indicate an increase in exceedences of arsenic over the groundwater standard of 200 parts per billion at monitoring well G104.

Also at well G104, dissolved iron concentrations have increased from non-detect levels, below the Class I and Class II standards, in 1990 to 1994, to concentrations of 8000 plus ug/L

from the year 2000 to the most recent sample results. Complainant's Exhibit 16 and 20. The Class II standard for dissolved iron is 5000 ug/L. Dissolved sulfate concentrations at G104 continue to exceed the Class II groundwater standard of 400 mg/L. Sulfate concentration have exceeded that standard at the G104 well since 1990. Dissolved chloride concentrations at G104 exceeded the Class II standard for chloride at the time of the April 2003 Illinois EPA sampling event at the landfill. Complainant's Exhibit 16 and 20.

At monitoring well G105, concentrations of dissolved iron have greatly increased since the sampling event conducted as part of the Illinois EPA's 1994 compliance review. By the year 2000, sampling results indicate iron concentrations at a level of 39,700 ug/L and as high as 51,800 ug/L. Complainant's Exhibit 16 and 20.

Ms. Nelson was asked at hearing whether any of the sample results she reviewed sent up any particular red flags of concern. TR 278 (lines 19-24), 279((1-5). Ms. Nelson testified that the results that first showed exceedences in 1990 and each exceedence since are all red flags. However, she continued, the fact that (1) the exceedences are increasing in magnitude, and (2) that concentrations of arsenic have suddenly increased above the groundwater standard levels are very significant red flags and should be investigated. Ms. Nelson added that these exceedences should have been investigated back when they were first detected. Ms. Nelson also testified that the concentrations of iron detected at monitoring well G105 are at a very high level, in fact, it is the highest level of iron concentration Ms. Nelson has ever seen at a landfill.

Further, samples collected in downgradient wells at the time of a May 1994 Illinois EPA sampling event indicated organic contaminants, commonly found in landfill (food) waste. Parties Exhibit 34, page 28. Tr at 256 (lines 1-12).

Concentrations of arsenic and sulfates over the Class II standards very likely may impact the water to the point of requiring treatment or preclude an existing or potential use of

groundwater. Also, iron concentrations at the very high levels detected in downgradient monitoring wells at the Jersey Sanitation Landfill likely may impact the water to the point of requiring treatment or preclude an existing or potential use of groundwater. Also, the detection of organics in the downgradient wells is significant to any existing or potential use of the groundwater.

In the case of *People v. McHenry Shore*, 259 Ill.App.3d 628, 637 (2d Dist. 1998), 693 N.E.2d 393, the court held that the Board's public water supply requirements that owners and official custodians provide water that is safe in quality, clean, adequate in quantity, and of satisfactory mineral characteristics for ordinary domestic consumption go beyond the requirement that water be bacteriologically safe for consumption. The water supply must also be clean and not offensive. The court cited *Farmer v. Stahl*, PCB 84-109 (March 14, 1986), wherein the Board held that water provided by a public water company that had a strong chlorine odor and a rusty color, and was "fizzy" and "cloudy", despite the fact no chemical analysis had been done of the water, violated the Board's requirements that a water supply provide water that is clean and satisfactory for ordinary domestic consumption.

This is relevant to the instant matter because the high iron, sulfate and chloride content in the groundwater may require treatment or prohibit use due to aesthetic characteristics and considerations as well as due to the chemical alteration of the groundwater.

Contaminant concentrations that constitute exceedences of the Board's Class II groundwater quality standards that are increasing in magnitude in the downgradient monitoring wells at the Jersey Sanitation Landfill, and results of sampling at a downgradient well at the landfill indicating concentrations of arsenic above the Board's Class II groundwater quality standards are significant releases to the environment for which treatment would be necessary to continue an existing use or to assure a potential use of the impacted groundwater, or that may result in an existing or potential use of such groundwater to be precluded. Thus,

Respondent Jersey Sanitation Landfill has violated Section 620.301 of the Board's groundwater quality regulations, 35 Ill. Adm. Code 620.301.

E. **The Respondent's violation of Section 12(d) of the Act, 415 ILCS Section 5/12(d).**

Section 12(d) of the Act, 415 ILCS 5/12(d), provides, as follows:

> No person shall:
>
> * * *
>
> d. Deposit any contaminants upon the land in such place and manner so as to create a water pollution hazard.

Respondent Jersey Sanitation created a water pollution hazard at the Jersey Sanitation Landfill. Respondent Jersey Sanitation Landfill admitted, in testimony presented by Pam Shourd at hearing, that it owned and operated Jersey Sanitation Landfill at all times pertinent to the allegations of violation of Section 12(d). Respondent operated the landfill from November 1989 until the landfill ceased accepting waste in September 1992. Since September 1992, Respondent Jersey Sanitation Corporation has continued to own the landfill and is thereby responsible for compliance with all closure and post-closure requirements, which includes compliance with the Act, the Illinois Groundwater Protection Act, and the Part 807 waste disposal regulations.

Respondent Jersey Sanitation Corporation had sole control of the property at all times following the purchase of the property in November 1989, and continues to have sole control of the property today. As such, it controlled the management and maintenance of all past, current and future depositions of waste on the property. It continued to operate the landfill from November 1989 until September 1992, during which time it accepted waste at the landfill and deposited it upon the land.

As set forth under Section B above, evidence is contained within the record of this proceeding that Respondent Jersey Sanitation possessed information that indicated it was

imperative that controls and practices be put in place and maintained at the landfill to address leachate, drainage and gas in order to avoid "significant pollution of the environment and undesirable effects for the landfill installation", that the Respondent in many instances either failed to install controls or failed to adequately and properly maintain controls, and the Respondent allowed the formation of leachate accumulations, seeps and flows, and gas releases and drainage problems to actually occur at the landfill. The proceeding includes evidence in the form of testimony of, as well as exhibits documenting, observations of leachate seeps and flows, gas releases and drainage problems at the landfill by Illinois EPA inspectors. Respondent Jersey Sanitation has not contested their own sample results, nor the results of samples obtained by the Illinois EPA. These results indicate ongoing exceedences of groundwater standards at the landfill. The results are contained in Parties Exhibits 34, Parties Exhibit 50 as well as in Complainant's Exhibits 16 and 20 and are compared therein to the applicable Class II groundwater standard.

By causing and allowing the deposition of wastes upon landfill property, that is, landfill property that was predicted by a professional engineer to likely experience leachate and groundwater problems that could result in "significant pollution of the environment and undesirable effects for the landfill installation" if the operator did not properly control drainage, cover refuse and anticipate and control leachate, and by then failing to install and maintain necessary controls that would adequately address drainage, leachate and the formation of gas, Respondent Jersey has deposited contaminants upon the land in such place and manner so as to create a water pollution hazard, and thereby violated Section 12(d).

F. **Since 1989, Respondent Jersey has failed to provide a statistical comparison or any groundwater assessment of upgradient versus downgradient groundwater quality and evaluate geologic information (i.e. additional borings, cross sections etc.) to determine the necessity of an additional background monitoring well which would be screened in the same hydrogeological zone as the downgradient well at the facility.**

Respondent Jersey Sanitation has failed to confirm that monitoring well G103 is an appropriate upgradient well for the landfill, despite requirements contained within its permits to do so dating back to November 1989, the month in which Respondent Jersey Sanitation acquired ownership and control of the landfill.

At hearing, Ms. Nelson provided testimony under direct examination, cross-examination and in rebuttal to Respondent's witnesses, that it continues to be her opinion that G103 is likely monitoring groundwater in a different zone than the zone of groundwater being monitored by the downgradient wells, and further, that Respondent Jersey Sanitation needs to conduct additional field work, statistical work and any necessary additional assessment work so as to provide substantial factual information and well grounded opinion as to the appropriateness of G103 as an upgradient well. Tr. at 237-248. Tr. from the January 13, 2004 hearing date at 78 - 80.

Special Condition 11(b) of Respondent's Permit No. 1989-177-SP reads as follows:

> The applicant shall provide a narrative demonstration that the revised monitoring program for Jersey Sanitation Corporation Landfill is capable of determining groundwater quality flowing onto and unaffected by the landfill, assess current contribution of the existing landfill on groundwater quality and determine if a release to groundwater is occurring. This information and study, shall be submitted to this Agency by by April 15, 1991 with other required fourth quarter "background" groundwater monitoring information required in this permit Attachment "A" Condition No. 5.

Permit 1989-177-SP exists in the record of this proceeding as Parties Exhibit 6.

On April 8, 1991, Henneghan and Associates submitted a document entitled Groundwater Monitoring Narrative and was noted to be "as required per Paragraph 11.b of the

November 15, 1989 letter from IEPA granting supplemental permit." Parties Exhibit 15.

On August 14, 1991, the Illinois EPA issued a letter in response to the April 8, 1991 submittal, stating the submittal failed to demonstrate that the revised monitoring program is capable of determining groundwater quality flowing onto and unaffected by the landfill. The letter states that the submittal provides no evidence that the operator can control, minimize or eliminate the post-closure releases to groundwater, since the narrative fails to prove that the operator can even detect a release to groundwater if it occurs. The letter sets a new deadline for the required re-submittal as 60 days of the date of the letter. Parties Exhibit 19.

On October 10, 1991, Heneghan and Associates submitted a document entitled Groundwater Monitoring Narrative – Supplement Permit, for Jersey Sanitation Corporation. Parties Exhibit 20.

The October 10, 1991 submittal (identified as log 1991-137, and in this proceeding as Parties Exhibit 20) by no means provides a thorough explanation as to why G103 was considered an appropriate upgradient well. The document lacks any substantial factual information, based on field work or other analysis, that conclusively resolves the question as to whether or not G103 is monitoring the same zone of groundwater. The Illinois EPA required, in direct response to the October 10, 1991 submittal, and since that time has continued to require, additional information to support the determination of G103 as an upgradient well, and in turn, the appropriateness of the groundwater monitoring program at the landfill in total given the unresolved question of the appropriateness of G103.

Rich Johnson, Illinois field inspector assigned to the landfill at the time log 1991-137 was under review, raised the question of the appropriateness of G103 in his review of log 1991-137. Mr. Johnson's review is contained in the record as Parties Exhibit 22. Within that review, under item 1, Mr. Johnson wrote:

> What permeable layer is being monitored? It's unclear looking at the drilling logs

whether the upgradient and downgradient wells will be sampling the same groundwater. How can data between the upgradient and downgradient be compared for detecting contamination if they are not from the same groundwater.

In a notice of permit denial regarding the October 10, 1991 submittal, dated January 8, 1992, (Parties Exhibit 24), one of the reasons given for the denial was the following, which appears on page 2 of the exhibit:

> 2. Special Condition #11b of Permit No. 1989-177-SP allowed for additional data to be gathered to determine if the program is capable of determining groundwater quality flowing onto and unaffected by the landfill, assess the current contribution of the existing landfill on groundwater quality and determine if a release to groundwater is occurring.
>
> The application failed to verify that what was identified as upgradient groundwater is from the same permeable zone as downgradient groundwater. Without this information, it is impossible to determine the current contribution, if any, of the existing landfill on groundwater quality, and determine if a release is occurring. This information is necessary to provide an adequate detection program. In order for your groundwater monitoring program to demonstrate compliance with 35 IAC 807.313 and 807.315, this information remains necessary.
>
> * * *
>
> Based on the items above, the application does not adequately provide the required information deferred conditions 11 and 12 of Supplemental Permit 1989-177-SP nor does it address the concerns in the August 14, 1991 correspondence from the Groundwater Assistance Unit of the Permit Section. By way of this letter, the date of the application pursuant to condition #11b of permit 1989-177-SP was due is now extended until April 15, 1992. Failure to submit the information required by that date will constitute a violation of that condition.

The next submittal from Respondent Jersey Sanitation Corporation was the November 1992 Biennial Review of the Closure Plan, Post-Closure Plan and Cost Estimates for the Jersey Sanitation Corporation Landfill, submitted by Andrews Environmental Engineering, Inc. Parties Exhibit 28.

On page 28 of Parties Exhibit 34, the author of the exhibit, Ms. Nelson, quoted from the

November 1992 submittal, Respondent Jersey's permit application (log 1992-350), wherein Respondent Jersey's consulting engineers, Andrews Engineering, in 1992, noted that "in reviewing the last four quarters of groundwater monitoring results, it appears certain parameters tested for in monitoring well G105 may have increased in the last two quarters. . . . Sampling results will be monitored closely for the next two or three quarters. If an adverse trend is confirmed, an assessment will be conducted."

The next supplemental permit to be issued to Respondent Jersey Sanitation was Supplemental Permit No. 1992-350-SP. It appears in the record as Parties Exhibit 30. Included in the permit is a statement that the permit conditionally approves the groundwater monitoring plan. Under Item A of the permit, it is stated that the water monitoring program is approved in accordance with Attachments to the permit, and is subject to the conditions contained therein. Attachment A to the permit is the Groundwater Monitoring Program. Attachment A includes requirements that the monitoring program be capable of determining background groundwater quality hydraulically upgradient and unaffected by the units and to detect any discharge of contaminants from any part of a potential source of discharge from the units. Parties Exhibit 30, Attachment A, Item 1. Attachment A requires the landfill to statistically evaluate the groundwater monitoring data to provide statistical comparisons between upgradient and downgradient groundwater quality data. Parties Exhibit 30, Attachment A, Item 4. In the event a significant change in groundwater quality occurs, Jersey Sanitation was to submit a groundwater assessment plan for Illinois EPA approval, and then implement the plan within 30 days of approval. An assessment report was to be submitted, and a proposed corrective action plan submitted and implemented within 30 days of approval. Parties Exhibit 30, Attachment A, Item 8.

Item 22 of Attachment A of Permit No. 1992-350-SP states as follows:

> Annually, the operator shall prepare an assessment of the monitoring program

> which shall include an evaluation of the groundwater flow direction and the hydraulic gradients at the facility. This assessment shall be submitted with the monitoring results due on July 15.

As documented in Parties Exhibit 34, the first annual assessment that was to be submitted in response to this condition was due on July 15, 1994. At the time that Ms. Nelson issued her report on the Illinois EPA's May 1994 sampling event at the landfill, the annual assessment had not been received. Ms. Nelson's report was issued in October 1994. Parties Exhibit 34, page 33.

Also included among the list of apparent violations contained with Ms. Nelson's report is violation of Special Condition 1 of Attachment A of Permit No. 1992-350-SP (Parties Exhibit 34, page 31):

> Special Condition 1, Attachment A. The monitoring program must be capable of determining background groundwater quality hydraulically upgradient of and unaffected by the units and to detect any discharge of contaminants from any part of a potential source of discharge from the units. This Agency reserves the right to require installation of additional monitoring wells as may be necessary to satisfy the requirements of this permit.
>
> JSC ["Jersey Sanitation Corporation"] is in apparent violation of this special condition because it appears that G103 is not hydraulically upgradient of, and unaffected by the site and is not monitoring the same geologic zone as the downgradient wells.

Parties Exhibit 39 is a memo concerning a certification of closure application prepared by Andrews Engineering for Jersey Sanitation Landfill Corporation, that was received February 28, 1997 by the Illinois EPA. Additional information was submitted by Andrews in support of this application in April 1997.

The memo includes a section entitled "Agency Comments". Parties Exhibit 39, page 2. This section consists of a discussion of the appropriateness of groundwater monitoring well G103 as an upgradient well. This discussion is based on a review of the file.

The section includes the following:

> Review of the boring logs and well completion reports for the Jersey facility . . . the screen interval for upgradient well G103 is 25.4 feet deeper than the downgradient well G104 and 21.2 feet deeper than G105 and 29.3 feet deeper than G106.
>
> * * *
>
> The most recent sampling event discovered in the groundwater file was the 3rd quarter of 1996. This data was compared to the 4th quarter 1995 sampling event. Review of this information revealed that upgradient concentrations at the background well (R103) are generally lower than downgradient concentrations. Specifically, chloride, iron and TDS concentrations are significantly higher in downgradient wells than in the background well at the facility. This may indicate that the upgradient well (R103) is not an adequate representative of background. The referenced elevated concentrations may be due to the fact that the background well at the facility is not monitoring the same hydrogeologic horizon as the downgradient wells (refer to Attachment 1).
>
> * * *
>
> The groundwater program was conditionally approved in Log No. 1992-350 issued February 8, 1993. Review of permit Log. No. 1992-350 and the permit file revealed that Special Condition No. 2, 3, 4 of the permit and Condition No. 22 of Attachment A requiring annual assessment and report of groundwater had not been addressed (refer to attachment of this memo). The special conditions used the working of "should" instead of "shall" and did not specifically give the applicant due dates for the requested information. These conditions have been reworded and added as special conditions to this closure certification. Condition No. 22 will be referred to enforcement.

The next section of the memo is entitled "Conclusions". Item No. 4 reads as follows:

> This application should be approved with the following conditions:
>
> * * *
>
> 4) The operator shall provide a statistical comparison of upgradient versus downgradient groundwater quality and evaluate geologic information (i.e. additional borings, cross-sections etc.) to determine the necessity of an additional background monitoring well which would be screened in the same hydrogeological zone as the downgradient wells at the facility.

As documented in Parties Exhibit 40, the report for the November 19, 1998 inspection, a meeting was held with Pamela Shourd and representatives of Andrews Engineering on November 12, 1997. In a follow-up letter to Ms. Shourd, Ms. Shourd was informed that an

approvable groundwater assessment plan was required pursuant to Permit No. 1992-350-SP. At time of the November 12, 1997 meeting, not only did the question of the appropriateness of G103 as an upgradient well remain unresolved, but well before that date the instant enforcement action had been filed which included allegations of groundwater quality standards based upon sampling results obtained by both the Respondent Jersey Sanitation and the Illinois EPA indicating exceedences of groundwater standards at the landfill. Thus, pursuant to permit conditions in effect at the time, a groundwater assessment was long overdue.

The November 19, 1998 inspection report further documents that Ms. Shourd did not respond to the follow-up letter, and that the Illinois EPA files showed that the only follow-up response from Respondent Jersey was a letter dated December 9, 1997, from Andrews Engineering withdrawing a pending February 1997 application for supplemental permit closure certification. Parties Exhibit 40, page 2 and 5 of the narrative. This withdrawal is also documented on Complainant's Exhibit 2, Permit Application History for Site Number 0838040001, Log 1997-083.

Included among the list of violations documented at the time of the November 19, 1998 inspection, is a violation of Attachment A of Permit 1992-230-SP, Special Condition 1: "Monitoring Well G103 is not hydraulically upgradient of, and unaffected by the site, and is not monitoring the same geologic zone as the down gradient wells." Parties Exhibit 40, page 6 of the checklist. Another violation noted on page 6 of Parties Exhibit 40 was the following: "Attachment A, Special Condition 22. The Respondent has failed to provide to the Agency an assessment report of the monitoring program to include an elevation of the groundwater flow direction and the hydraulic gradients of the facility."

The next permit to be issued to Jersey Sanitation Landfill Corporation was Supplemental Permit No. 1999-209-SP. It approved the plans submitted by Andrews Engineering for Jersey Sanitation Corporation Landfill dated June 7, 1999, supported by additional information

submitted August 31, 1999, September 8, 1999 and September 24, 1999. The water monitoring plan contained within the permit included Special Condition 3. This condition included language that the "operator ***shall*** supply the Illinois EPA with all sampling and analysis procedures used in providing ***a reliable indication of groundwater quality in the zone being monitored.***" (Emphasis added.) The condition also included the following requirements:

> Also, the operator shall provide an evaluation of the groundwater exceedences reported in the February 9, 1999 groundwater monitoring report, received April 2, 1999. The concentration levels for arsenic, iron, manganese, sulfate, TDS, TOC, and TOX in wells G104, G105, and G106 are above the 620 Class I Standards. The evaluation shall include the comparison of the established background confidence limits to concentration levels of these parameters, a historical trend analysis of the data, groundwater flow maps over the last four consecutive monitoring quarters and, if necessary, an assessment monitoring plan in accordance with special condition no. 8(b) of Attachment A to Permit No. 1992-350-SP. This information shall be submitted to the Illinois EPA in the form of a supplemental permit application no later than December 31, 1999.

The report for an inspection conducted by the Illinois EPA on June 6, 2000 is contained within the record of this proceeding as Parties Exhibit 43. As indicated on page 6 and 7 of the inspection checklist, as of the date of the inspection, June 6, 2000, Jersey Sanitation Corporation had failed to submit the information required by condition C.3 of the permit.

The Illinois EPA next inspected the facility on June 14, 2001. In his inspection report, the inspector noted the Board's permit appeal order, and that the Board had granted summary judgment wherein it struck Condition C.3 of Supplemental Permit No. 1999-209-SP. The Board's order exists in the record of this proceeding as Parties Exhibit 44. The decision of the 4th District Appellate Court regarding that order exists in the record of this proceeding as Parties Exhibit 48.

Despite the long history of continuing requirements to substantiate and confirm the appropriateness of G103 as an upgradient well, and thus the appropriateness of the overall monitoring program, and despite sample results indicating exceedences dating back to the

early 1990s, Respondent Jersey Landfill has failed to formally notify the Illinois EPA of exceedences at the landfill, it has failed to confirm either the existence or nonexistence of an adverse trend at the landfill, it has failed to prove the appropriateness of G103 as an upgradient well and it has failed to submit a groundwater assessment plan or conduct any form of groundwater assessment at the site. Tr at 278 (lines 9-14), 169 (lines 19-24), 170 (lines 1-15) and Tr at 169-148 (more specifically Tr at 181 (1-24), 182 (lines 1-24), 183 (lines 1-24), 184 (lines 1-18)). Respondent Jersey has failed to conduct an annual monitoring assessment, which has been part of its basic quarterly and annual monitoring. Tr at 172 -175. The evidence that Respondent Jersey failed to perform annual assessment monitoring, a significant change assessment, statistical background work or draft and implement a corrective action plan has not been controverted in this proceeding.

As is clear from the permits that have been entered in this matter as parties exhibits, pursuant to permit conditions in effect prior to the Board's order of June 21, 2001, Respondent Jersey was under an obligation to conduct a site assessment, statistically evaluate the monitoring data by conducting a statistical comparison between the upgradient and downgradient groundwater quality data, and develop a corrective action plan should sampling results indicate exceedences of applicable groundwater quality standards. Parties Exhibits 30, Attachment A, Groundwater Monitoring Program, 42, Section C Monitoring. On June 21, 2001, the Board granted Jersey Sanitation's appeal of Supplemental Permit No. 1999-209-SP. Pursuant to the June 21, 2001 Board order, Parties Exhibit 44 at 15, the Board held that the groundwater monitoring plan included in the 1999 post-closure care permit application to be a condition to the permit pursuant to 35 Ill. Adm. Code 807.523 and as submitted to be sufficient to meet the requirements of the Act and Board regulations. Parties Exhibit 41 at Attachment 5, page 4. Thus, the groundwater monitoring plan contained within the application became applicable upon the Illinois EPA's acknowledgment of receipt of certification of completion of

closure, approval of final contours, and approval of the biennial revision of the closure and post-closure plan and cost estimates. This acknowledgment and these approvals were issued by the Illinois EPA on October 5, 1999.

The groundwater monitoring plan contained within the 1999 post-closure care plan application consists of two paragraphs that read as follows:

> Assuming groundwater monitoring of the site is conducted in accordance with the anticipated permit requirements at the time of closure, four (4) monitoring wells will require sampling, analysis, and reporting on a quarterly basis. Each sample will require quarterly laboratory analysis for the parameters on List 2 and annual analysis for the parameters on List 3A. Field measurements of water sample temperature, water elevation, well depth elevation, depth to water, pH, and specific conductance will also be performed. All results will be reported to the IEPA in the manner prescribed at the time of reporting. No changes in the groundwater monitoring program are anticipated during closure or the post-closure care period.
>
> Groundwater monitoring results will be evaluated each quarter against background data, General Use Water Quality Standards, and other historic water analysis information. If a trend is believed to be developing, more frequent sampling (e.g. monthly) may be performed to substantiate or dismiss the likelihood of site impact. A professional engineering firm should be retained to develop future actions and/or plans for subsequent IEPA approval.

Parties Exhibit 41 at Attachment 5, page 4.

Under direct examination at hearing, Andrew Rathsack, president of Andrews Environmental Engineering who serve as consulting engineers for the Respondent, testified that he was involved in the drafting of the 1999 application for certification of closure. He indicated he was the principal, at Andrews Engineering, in charge of the work on the application and that he was familiar with the groundwater monitoring plan contained within the application. TR 391 (lines 8-24), Parties Exhibit . At hearing, Mr. Rathsack testified as to the intent of the two paragraphs quoted directly above. TR at 392 - 399.

On cross-examination, Mr. Rathsack testified as to the intent of the second paragraph of the groundwater monitoring plan, which is the plan the Board's June 21, 2001 permit appeal order held to be a condition to the permit pursuant to 35 Ill. Adm. Code 807.523 and as

submitted to be sufficient to meet the requirements of the Act and Board regulations. The transcript of this cross examination, TR at 398 (lines 4-24) and 399 (lines 1-5), proceeded as follows:

Q. " . . . the second paragraph indicates that if a trend is believed to be developing, more frequent sampling may be performed to substantiate or dismissed the likelihood of site impact?

A. Um-hmm.

Q. Okay. What is the intent of that?

A. The intent was to do more simplistic, maybe, evaluation as part of this process where you collect the data and so forth, to take a cursory look at the results.

Q. All right. And then what if the results indicated impact?

A. Well, as indicated there, it may require or justify more frequent sampling and the like.

Q. Okay. But what if the more frequent sampling indicated impact?

A. Then you'd have to probably evaluate the significance of that impact, of it one exists at all.

Q. Okay. And what if one exists?

A. How to address it.

Q. Okay.

A. Or, you know, logical progression.

Q. Okay. So it would require an assessment.

A. It could.

Q. Okay. So we've reached this point from the language of the second paragraph, is that correct?

A. Yeah, I think so.

Ms. Munie testified that the Part 807 regulations and the Act both require that facilities not cause or allow contamination of the environment. Tr. at 27 (lines 1-2). She continued, "In this case, we were looking at the groundwater itself. In both the Act and the regulations, during

post-closure care at 807 facilities, you cannot cause a violation of the standards." Ms. Munie , on cross-examination, specified that she was relying on 35 Ill. Adm. Code 807.313 and Section 12(a) of the Act, 415 ILCS 5/12(a). Tr. at 46 (lines 16 -24) and 47 (lines 1-11). Ms. Munie testified that the requirements contained in the Part 807 regulations and the Act prohibiting facilities from causing or allowing contamination of the environment served as the basis of her opinion as to what is required at a Part 807 landfill if groundwater monitoring results indicate exceedences of the groundwater standards and if the exceedences were continuing and even increasing in magnitude over time. Tr. at 26 (lines 22-24) and 27 (lines 1-5).

Ms. Munie's opinion is included in the transcript on pages 25 and 26, and is further clarified on cross-examination. Tr. at 41 and 42. Ms. Munie testified that the groundwater assessment consists of an evaluation as to whether or not an increasing trend exists, and if it does exist, a determination of the source of the contamination is to be included in the assessment. Tr. at 42 (lines 7-9). Therefore, confirmation as to whether a trend is occurring or not is considered to be part of the groundwater assessment itself, as is a determination of the source of the contamination should the existence of an increasing trend be confirmed.

Further, Ms. Munie testified that work described in the second paragraph of the groundwater monitoring plan that appears on page 4 of Attachment 5 of Respondent's 1999 permit application that reads: ""If a trend is believed to be developing, more frequent sampling (e.g. monthly) may be performed to substantiate or dismiss the likelihood of site impact.", would be considered part of a groundwater assessment that might be required of this site, or any site that is exhibiting exceedences. Tr. at 49 (lines 6-18).

At hearing, Ken Liss, Springfield Office Director for Andrews Engineering, identified as one of Respondent's groundwater opinion witnesses, testified that given all of the groundwater sampling data available for the Jersey Sanitation Landfill site, and given that these results indicate exceedences of the groundwater standards, and given what the current permit

requires, the current permit requires that a trend analysis be performed. Tr. for January 13, 2004 hearing date at 40 (lines 18-24) and 41 (lines 1-2).

Testimony provided by Karen Nelson, Andrew Rathsack, Joyce Munie and Ken Liss support the conclusion that Jersey's present permit requires, given the history of exceedences in the downgradient wells at the site, a trend analysis and development of a groundwater assessment plan, to include field work and further analysis that will evaluate the appropriateness of G103 as an upgradient well, for submission to the Illinois EPA for approval. Upon approval, the assessment plan should be implemented and a course of corrective action to address exceedences should be developed and implemented. As described by Joyce Munie and Karen Nelson at hearing, based on the prohibitions set forth in Section 12(a) and the Part 807 regulations, specifically 807.313, wherein owners of a landfill are prohibited from causing violations of the Board's standards, an expected course of action to bring the landfill into compliance would be development and implementation of an assessment plan, and development and implementation of a plan of corrective action.

G. <u>There is a continuing need to assess Respondent Jersey Sanitation Landfill's reliance upon G103 as an upgradient well and conduct a groundwater assessment at the site. Respondent Jersey Sanitation Landfill has failed to conduct field work necessary to confirm the groundwater zones at the site so that the wells are monitoring the proper permeable zone</u>

Ms. Nelson testified that it appears that the G103 well, the well identified as the upgradient well in Respondent Jersey Sanitation's current monitoring plan, is not upgradient or not positioned such that it can be proven that it is upgradient. The well is screened very deep compared to the downgradient wells, and Ms. Nelson testified she believes it could be monitoring a deeper zone. Tr. at 237. Ms. Nelson testified that the G102 well, a well that most likely was part of a previous monitoring effort and which remains on the property and available for use, appears to be a more appropriate upgradient well because it is screened at a shallower

depth. Tr. at 238 - 239. She further explained that the upgradient well in a monitoring plan is the well at which the Respondent determines background groundwater quality that is supposed to be unaffected by the landfill.

Using Attachments 8 and 9 to Parties Exhibit 34, Ms. Nelson explained the basis of her conclusion. She pointed out that Attachment 8 shows the elevation of the groundwater, based on readings acquired at the time of the May 1994 Illinois EPA sampling event, and also the flow direction of what she termed the shallow groundwater at the site. Ms. Nelson testified that the Illinois EPA used the G102 well in its determination of groundwater elevation. Ms. Nelson testified that the flow of the groundwater mimics the topography – the elevation of the surface topography decreases from east to west, toward Sandy Creek, and the elevation of the groundwater decreases from east to west, toward Sandy Creek. On the east side of the property, both the surface topography and the groundwater elevation are higher than in the west.

Ms. Nelson next testified as to the content of Attachment 9 of Parties Exhibit 34. She testified that the information was taken from the files for the RCS, Inc. landfill which is located directly south of Jersey Sanitation Landfill. Respondent's groundwater opinion witness, Brad Hunsberger, later testified that he personally participated in the groundwater investigation conducted at the RCS, Inc. landfill.

The RCS, Inc. Landfill is 500 feet south of the Jersey Sanitation Landfill. Tr. for the January 13, 2004 hearing date at 50. In that the RCS, Inc. landfill was constructed only 500 feet south of Jersey Sanitation Landfill, it exists on the south portion of the 200 acres purchased by Jersey Sanitation Corporation in 1989 from Ralph Johnson, pursuant to testimony provided by Pam Shourd. Tr. at 350. This property was still owned by shareholders of Jersey Sanitation Corporation during the time of operations of Jersey Sanitation Corporation. Ms. Shourd testified that the incidences of open burning and composting alleged as violations were

activities that Jersey Sanitation conducted on the farm property south of the landfill and not within the boundaries of the Jersey Sanitation property itself. Tr. at 351 and 352. In a letter dated December 13, 1990, Ms. Shourd informed the Illinois EPA that the farmland to the south of the landfill was under the control of a partnership called CRS Partnership. She then claimed control of that land via this partnership when she states, "It has been our understanding that as long as we met the criteria listed, no permit was required." Parties Exhibit 11, page 2. Obviously, Ms. Shourd, in this letter, is identifying herself with CRS Partnership, owners of the southern portion of the original site, by use of the term "we". Mr. Hunsberger testified that in 1992, Andrews Engineering was contracted to put together a permit application for a facility known as RCS, Inc. Landfill, which is approximately 500 feet south of the boundary for Jersey Sanitation. As part of that permitting process, he designed a boring program for the RCS, Inc. Landfill site. The RCS, Inc. Landfill was permitted under the Part 811 regulations. Tr. for the January 13, 2004 hearing date at 87. It is safe to conclude that shareholders of Jersey Sanitation Corporation, owners of the land upon which the landfill was to be developed, either contracted with Andrews Engineering directly to develop a permit application and conduct the groundwater investigation at RCS, Inc. Landfill, or had some other less direct interest in the development of the RCS, Inc. Landfill. Whether the interest was direct or not, obviously there were sufficient resources available connected with the 200 acre property in 1992 to fund and support development of a Part 811 landfill.

There is ample evidence in the inspection reports that RSC is currently maintaining the Jersey Sanitation Landfill. Parties Exhibit 40, page 3 of the narrative. Parties Exhibit 35, pages 1 and 2 of the narrative. In Parties Exhibit 35, documenting a 1995 CERCLA inspection at Jersey Sanitation Landfill, there is a description of a conversation that took place at the time. It was explained that RSC Inc. Landfill has been retained by Ms. Shourd to maintain adequate cover and erosion control at the Jersey Sanitation Landfill. At the time of the inspection, Pam

Shourd explained to the inspectors that the site owners were Thomas and Susan Roach, John and Jennifer Cronin, and herself, Pam Shourd. The initials of these three owners are "R", "C", "S". The inspection report also indicates that the inspectors were greeted by the party of Mike Duvall, site operation for the adjoining new RSC, Inc. landfill, his assistant Rick Laird and Pam Shourd.

Pam Shourd testified at hearing that, currently, the only assets Jersey Sanitation Corporation has are the 10 acres of the Jersey Sanitation Landfill and the "60 odd thousand dollars" in the landfill's trust fund. Tr. at 327. Ms. Shourd testified that the corporation does not own anything else and has no cash reserves. Tr. at 327. Asked if any personal money was going into the landfill, Ms. Shourd testified that personal money was being used to pay attorney fees and real estate tax. Tr. at 365. Asked if any personal money from the shareholders was going into maintenance of the landfill, Ms. Shourd stated "no", no personal money was being used for maintenance of the landfill. Tr. at 367. All evidence indicates, none of which has been controverted by the Respondent, that RSC is maintaining Jersey Sanitation Landfill free of charge. Generally a corporation will only provide services free of charge if it has some interest in the subject of those services.

Returning to the content of Attachment 9 of Parties Exhibit 34, Ms. Nelson explained that this attachment was a diagram she drafted based on information contained within the RSC permit file. Tr. 242-243. Referring to Attachment 9, she testified that it showed the groundwater being monitored at RSC, which is directly above the bedrock and correlates to the groundwater monitored at G103. It is screened and thus is monitoring groundwater significantly deeper than the groundwater monitored by the downgradient wells at Jersey Sanitation.

Ms. Nelson explained the correlation between Attachment 8 and Attachment 9 (Tr. 243-246):

> So I correlated those two sites. And it appears that the groundwater, the deeper

groundwater, is flowing to the south as opposed to the west. The shallow groundwater flows to the west, as in Attachment 8 shows, but the deeper groundwater flows – actually there is a bedrock valley in that area, and it's following the bedrock valley to the south.

. . . my concern would be – and my conclusion would be that G103 is not an appropriate background or upgradient monitoring well to use, because an upgradient background well is supposed to be unaffected by the facility. This well is not upgradient. It looks to be downgradient.

Asked why she came to this conclusion, Ms. Nelson responded:

Based on the geology and the depth of the well and correlating it with the groundwater and the geology data at the nearby RSC Landfill. And the reason I looked to the RSC permit application was because it had an extensive geologic investigation done with it, and it was close by, so I wanted to correlate the geology.

Ms. Nelson next explained Attachment 5 of Parties Exhibit 34 (Tr. 245-246):

This is – Attachment 5 is a cross-section that I drew based on the information that was in the file for Jersey Sanitation. It includes the depth to the bedrock, the depth of the monitoring wells, the depth to groundwater, and the groundwater elevation, and it – a superimposed thumb print of where the ravine was that was filled with garbage.

The bedrock elevation is higher on the west side and it decreases to the east toward G103.

. . . The geology is definitely a factor that is considered in groundwater flow, and the bedrock would impede groundwater flow such that the groundwater, if it was – if the deep groundwater was going to flow to the west, it would have to go through the bedrock or go up over the bedrock, which it's not doing, because you can tell if there is an upward gradient versus a downward gradient because of the wells on the east side. What's called a cluster.

There's a shallow well and a deep well, and you can measure the water levels. And water flows from the higher elevation to the lower elevation. . . . So there is a downward gradient.

So that made me conclude that it is not flowing up and over the bedrock. It's not going to flow through the bedrock because it's shale, clay, stone and limestone, which are relatively impermeable, and we refer to those as aquetard.

And there's also the bedrock valley, which is linear and going north-south, so the deeper groundwater is flowing along the valley toward RSC Landfill.

So my concern is that it's not a truly upgradient well. It's not appropriate to use for the shallow groundwater.

Another piece of information in evidence in this proceeding would support the conclusion that G103 is downgradient. Ms. Nelson testified that when they sampled G102, the shallow upgradient well, results indicated no exceedences of groundwater standards. Tr. at 257. She also testified that even though G103 has shown no exceedences of Class II standards, sampling results from G103 do show exceedences of Class I standards. Tr. at 258.

Asked if she had formed any opinions or conclusions at to what measures the landfill should take, given this information, Ms. Nelson responded (Tr. 246-247):

> In regards to that specific concern, they need to re-evaluate the geology to determine what an appropriate upgradient well would be. And they need to look at the water table versus the depth of G102 and G103.
>
> And in regards to G102 . . . They need to look at that to see if possibly that's an appropriate upgradient well.

On cross-examination, Ms. Nelson responded as follows when asked whether she would be satisfied if the operator would just begin sampling G102 as the upgradient well. Ms. Nelson responded that she would like to see some investigation done as, for example, how deep below the top of the water table it is screened, and does it correlate to the downgradient. "I would not order them to start sampling it, no. I would want someone to look at it and look at the geology and make sure it's appropriate." Tr. at 299.

Ms. Nelson further testified that if G102 proved unsatisfactory, the Respondent would need to look at other locations for an upgradient well, and their evaluation may require additional boring to obtain additional information on the geology. Tr. at 247. She further explained (Tr. at 248):

> Well, there is some geologic data in the file now, and whether that's enough for a geologist to feel comfortable or not is questionable. They might – the geologist might want to have more detailed information concerning the geology in the area.

On cross-examination, Ms. Nelson testified that she would like to additional information

developed as to the depth to the top of the water table (Tr. at 302-303):

> . . . The one thing that I don't really have is the depth to the top of the water table. That is something that they might want to investigate a little bit.

Asked why that might make a difference, she responded (Tr. at 303):

> Because you need to screen the wells approximately the – in the same zone, the upgradient versus the downgradient. And that's one of my concerns is that the upgradient well's screen so much farther down below the water table, the top of the water table, and the shallower downgradient wells are not – they're screened closer to the – to the top of the water table.

Ms. Nelson was then asked, "But you've already concluded that those three downgradient wells are being impacted by the landfill, so why do we need to get that other information?" She responded (Tr. at 303-304):

> . . . Well, need to find out exactly where the contamination might flow to, and the properties of the contaminants versus the properties of the sediments, where do you think that the contaminants might flow to and how far. And also, the properties of the contaminants. It would be in the land – or the landfill owner's best interest to do an assessment to figure out if some of the contaminants are naturally occurring.
>
> So, I would say . . . some of the levels are pretty high, which I would say are not naturally occurring. The iron, the arsenic is very suspicious, the sulfate. You need to pin down which ones are the exact contaminants that are coming from the landfill, which usually takes some more investigation and maybe even more wells to track it. That is typical of a groundwater assessment.
>
> Any maybe additional monitoring. I have seen some sites do monthly monitoring or expanded monitoring to see if there is other contaminants. Because what the landfill monitors for doesn't mean there isn't other contaminants out there. But that's getting into the future.

Asked if she could rule out, without qualification, natural causes for the exceedences or some other cause, that being, some other source than the landfill, Ms. Nelson testified that she did not know of any other cause than the landfill. Tr. at 304. Ms. Nelson also testified that other potential sources would be one thing that would be determined during a groundwater assessment. Tr. at 307. Ms. Nelson testified that a groundwater assessment would include

definition of the geology of the site so as to determine how far a contaminant might travel, that is, whether it is bound to travel off-site, and whether or not it will be diluted. Tr. at 282.

Brad Hunsberger, director of hydrogeological services for Andrews Engineering, identified as Respondent's groundwater opinion witness, testified that he believed G103 was an appropriate upgradient well because he believed there was a continuous permeable zone running from the location of the screen at the G103 well, above the bedrock, uphill along the bedrock all the way to Sandy Creek.

In rebuttal, Ms. Nelson testified that she did not believe the geology of the site supported Mr. Hunsberger's theory at the Jersey Sanitation Landfill. Tr. for the June 13, 2004 hearing date at 69, 74, 75. Based on what was submitted in the boring logs of the 1991 Heneghan report, Parties Exhibit 20, it appears G103 was screened at a deep depth because the screen was placed in a discontinuous 1 foot layer of sand (described as gravel on the boring logs). Tr. for the January 13, 2004 hearing date at 69. Ms. Nelson said, in reviewing the boring logs, it appears that this sand/gravel layer, as its described in the boring logs, is present only at G103. It does not match the description of the material in which the other wells, the downgradient wells, are screened. In that the sand/gravel layer described as the material in which G103 is screened is not described on any of the other boring logs, it appears to be a discontinuous lens of material, that is, G103 is isolated. Tr. for the January 13, 2004 hearing date at 75.

Ms. Nelson noted that there is also, in the boring log for G103, mention of weathered material. Tr. for the January 13, 2004 hearing date at 75. Ms. Nelson described the bedrock and the area immediately above the bedrock as follows. She testified that the bedrock is different at the different wells. She said the bedrock varies from shale on the east side to clay stone in the middle of the site, and then shale and limestone on the west. She testified that what is directly above the bedrock varies slightly but it is blue, gray and brown silty clays. Sometimes there is a mention of trace sand or trace gravel in with the clay. As stated by Mr.

Hunsberger, clay typically does not transmit water. Tr. for the January 13, 2004 hearing date at 49 (lines 2-3). Ms. Nelson also testified that there is, in a couple of the borings, a mention of a thin weathered zone. She said she believed that it was the boring for G104 that showed six inches of weathered clay stone. She testified that just because it was weathered does not necessarily mean the material is permeable or it is going to transmit much water. In conclusion, she said, the material above the relatively impermeable bedrock is relatively impermeable silty clay, and above that is glacial till. She said this progression is consistent throughout the site. She said some of the till is brown, which may mean it is oxidized and it can transmit water. However, these characteristics do not make it an aquifer or anything close to an aquifer, but such soils may transmit water and rainwater will seep into it and through it.

Ms. Nelson provided the following further conclusion (Tr. for the January 13, 2004 hearing date at 74):

> I believe the downgradient wells, especially G105 and G106, are in an unconfined zone that is perched above the bedrock and is recharged by rainwater and by some groundwater and by any leachate coming out of the landfill. I don't think that there is a continuous confined permeable zone overlying the entire bedrock that connects all these wells and discharges into Sandy Creek.
>
> I don't know if the groundwater on the west side discharges into Sandy Creek or just under it, but the shallow water, ground water is flowing to the west. I would agree with that.
>
> . . . if you are going to have the ground water flowing up hill along the bedrock, which is a very common phenomenon, there is nothing unusual about that, but you have to have something to connect it. If you have a permeable zone connecting all the wells, yeah, and if it is confined, yes, I would agree. But I don't see that the data supports that in this case, based on the boring logs. there is no – there is no continuous permeable zone. . . .

Ms. Nelson testified she could find no evidence in the boring logs, or in any other documentation of the geology of the site, that the zone monitored by G103 and the zone monitored by G104, 105 and 106, is hydrogeologically connected.

Mr. Hunsberger attempted to support his conclusion by making the following points.

Under close examination, each one of his conclusions is without sufficient factual support.

On page 53 of the transcript for the January 13, 2004 hearing date, Mr. Hunsberger discusses the basis for his opinion that G103 is an upgradient well. A close examination of the reasoning set forth in lines 5 through 21, which is the basis for his opinion, reveals that Mr. Hunsberger is purporting that the well is appropriate because it is simply located on the east side of the landfill, a location of higher potentiometic surface. He completely fails to address, in this discussion, the proposition that there is a shallow zone of groundwater at the landfill and a deeper zone of groundwater. Later in his testimony, Mr. Hunsberger agrees with Ms. Nelson that G103 could be part of the southern system – that the G103 well might be upgradient to the groundwater zone monitored at the RSC Landfill, directly south, in a zone above the bedrock. Tr. for the January 13, 2004 hearing date at 64. Ms. Nelson identified this zone as a deeper zone, flowing south consistent with a bedrock valley that underlies the RSC Landfill. The description of a bedrock valley suggested by Ms. Nelson is consistent with Mr. Hunsberger's testimony that the groundwater at the RSC Landfill flows south, with slight easterly bearings and westerly bearings. Tr. for the January 13, 2004 hearing date at 61 (lines 2-7).

Throughout Mr. Hunsberger's testimony, he supports his conclusions with the fact he personally witnessed borings in the field at the RSC, Inc. landfill and, therefore, he testified, he is intimately familiar with the geology. However, as he admitted on cross examination, all of his field experience concerned his work at the RSC Landfill. He has never worked in the field at the Jersey Sanitation Landfill. Tr. for the January 13, 2004 hearing at 101 (lines 15-24) and 102 (lines 1-3). As discussed by Ms. Nelson, the boring logs from the RSC Landfill described the material in which its wells are screened as "bedrock rubble sand and gravel" at the bedrock interface. The boring logs for the Jersey Sanitation Landfill describe the material in which the wells are screened at the bedrock interface as silty clay. Mr. Hunsberger, in his reading of the Jersey Sanitation boring logs, also describes the material as silty clay.

As Ms. Nelson points out, the only boring log that includes a description of a zone of sand and gravel, a zone that exists in the area in which the well is screened, is G103 at a depth of 96 feet.

Ms. Nelson raises very significant points in rebuttal to Mr. Hunsberger's opinions. First, the bedrock interface layer that Mr. Hunsberger claims is a continuous permeable zone, is actually made up of silty clay. It does not at all resemble the bedrock interface of rubble sand and gravel being monitored at RSC Landfill. Rather, it is clay. Clay, generally, is relatively impermeable. Mr. Hunsberger testified in agreement to this point himself. Secondly, there truly is nothing in the boring logs that would indicate there is a permeable continuous zone above the bedrock at the Jersey Sanitation Landfill. Instead, the boring logs, which appear in the records of this proceeding as part of Parties Exhibits 20 and 34, show that, the sand/gravel and weathered shale identified in the boring log for G103, is not present in the boring log for boring B2, the next boring west of the boring for G103, which is identified as Attachment 9 of Parties Exhibit 3. As noted by Ms. Nelson, the bedrock described in the borings varies from east to west at the landfill, and the description of the material above the bedrock consists of varying descriptions of silty clay materials. Tr. for the January 13, 2004 hearing date at 72.

Mr. Hunsberger presented no substantive, factual evidence that would support his premise that the clay above the bedrock is permeable, or continuous.

Mr. Hunsberger states, in an attempt to defend his opinions, that it is the contact point between the glacial sediments and the bedrock that would be the most likely zone for there to be moving water. However, he does not substantiate the statement with any specific information that such is the actual case at Jersey Sanitation. Mr. Hunsberger goes to great lengths to extrapolate his observations at RSC, Inc. Landfill, to the Jersey Sanitation Landfill. However, his own reading of the boring logs from the Jersey site defies the credibility of any such extrapolation. At RSC Landfill, the bedrock interface is bedrock rubble sand and gravel.

At Jersey Sanitation, the boring logs say clay.

It is obvious from the record of this proceeding, that the shareholders of Jersey Sanitation Corporation (Pam Shourd, her son-in-law and daughter, Tom Roach and Sue Ayers. Tr. at 327; the owners of the Jersey Sanitation Corporation Landfill were identified as Thomas and Susan Roach, John and Jennifer Cronin, and Pam Shourd at the time of a 1995 CERCLA inspection. Parties Exhibit 35.) and RSC, Inc. were willing to spend significant resources on the development of RSC, Inc. Landfill. An extensive groundwater investigation was performed under the direction of Mr. Hunsberger in 1992, pursuant to the requirements of Part 811, at the RSC, Inc. Landfill at the same time Jersey Sanitation Landfill was being closed and Jersey Sanitation Corporation was displaying a great unwillingness to devote resources to the performance of a groundwater investigation at Jersey Sanitation Corporation Landfill that would resolve questions raised about the groundwater monitoring plan and also address compliance problems. To this day, rather than conduct necessary field work at the Jersey Sanitation Landfill to resolve outstanding questions, Respondent's opinion witness is unjustifiably relying upon and extrapolating geological information gathered at the RSC Landfill as a basis for his unfounded conclusions regarding the Jersey Sanitation Landfill. Respondent's opinion witness is relying on information already gathered, paid for, and perhaps even profited from, from the RSC, Inc. Landfill instead of actual field information that as yet needs to be acquired at the Jersey Sanitation Landfill to adequately resolve long-standing questions.

One thing that is also obvious from the record of this proceeding, is that Jersey Sanitation Corporation and RSC, Inc. have been longstanding clients of Andrews Engineering. The span of submittals and participation by Andrews in issues concerning Jersey Sanitation Corporation spans a period of 12 years. In this proceeding alone, the president of Andrews, the director of the Springfield office for Andrews, and the director of hydrogeologic services for Andrews, testified for Jersey Sanitation Corporation. Yet Pam Shourd testified that Jersey

Sanitation has no liquid assets. Obviously, somewhere or somehow, there are sufficient resources, or a sufficiently valued client relationship, to justify the participation of Andrews principals in this proceeding.

Mr. Hunsberger provided a further basis for his conclusions with an explanation based on potentiometric surface pressures. The bottom line of this explanation is also in the nature of a simple conclusory remark – "Based on having firsthand knowledge of the soil at RSC and reviewing the logs at Jersey Sanitation, the wells are all placed in the same monitoring zone at the bedrock surface. So the data is good data." The following is Mr. Hunsberger's explanation as it appears in the hearing transcript (Tr. for the January 13, 2004 hearing date, at 62-63):

> The potentiometric surface is the surface of the ground water that it would rise to in the event that there were unconfined conditions, meaning there was nothing compressing the groundwater at the bedrock interface. If you take all that information and you draw contours to where the groundwater would rise in these monitor wells you will see essentially a topographic profile of the high topography between the two landfills. And at the RSC facility it then would decrease, and at the Jersey Sanitation facility it would decrease to the west. It would decrease at the south at RSC and would decrease to the west at Jersey Sanitation.
>
> It is forced potential for the groundwater. It is the weight of the groundwater and the gravimetric forces that create the pressures, and that is just the way the groundwater is going to move. Based on having firsthand knowledge of the soil at RSC and reviewing the logs at Jersey Sanitation, the wells are all placed in the same monitoring zone at the bedrock surface. So the data is good data. You can combine the two and use it to create the one map that shows the contours of the groundwater. And then that, thus, would indicate which way the ground water is flowing.

Mr. Hunsberger's explanation works as well to explain the groundwater elevations that might be observed if there was a shallow zone of groundwater flowing west at the Jersey Sanitation Landfill and a deep zone of groundwater flowing south, as it does to seemingly serve his purpose. Nothing in this explanation provides any factual, substantive data as to why he concluded there is a continuous groundwater zone at the bedrock flowing uphill, and to the west. He certainly can't be relying on the RSC, Inc. landfill information as the basis of his opinion when it is so strikingly factually dissimilar to the information available for Jersey.

The fact that there are high elevations of groundwater on the east side of the landfill by no means precludes the concept that the shallow groundwater is flowing west and deeper groundwater is flowing south. The deeper groundwater at the Jersey Sanitation landfill would be an upgradient portion of the deep zone of groundwater flowing at the bedrock interface south, continuing under what was developed as the RSC, Inc. landfill and monitored pursuant to the RSC Inc. groundwater monitoring plan for that landfill. The fact that G103 is screened deeply is what causes the Illinois EPA to question whether it is monitoring a deeper zone of groundwater than the shallow zone of groundwater that has been identified to exist at the Jersey Sanitation Landfill flowing west, which is being monitored by the G104, 105 and 106 wells.

Mr. Hunsberger goes on to attempt to justify his conclusions based on the groundwater elevations detected in a well at the Jersey Sanitation Landfill and another at the RSC, Inc. landfill. The elevation in the RSC, Inc. Landfill was detected at a higher point than a well north of it on the Jersey Sanitation Landfill. Mr. Hunsberger's point that the elevations detected support the fact that groundwater at the Jersey Landfill is flowing west and groundwater at the RSC, Inc. landfill is flowing south, by no means contradicts the fact that a shallow zone of groundwater at the Jersey Sanitation Landfill flows west, and a deeper zone originating at the east side of the landfill flows south. In fact, the bedrock profile at Jersey Sanitary Landfill supports the opinion that there may likely be a deep groundwater zone coming from the east side of Jersey Sanitation Landfill and flowing south. The bedrock is found at higher elevations at the west side of the Jersey Sanitation Landfill and its elevation slopes down, or deeper, moving east across the landfill. So at the east end, it is at a deeper elevation and is consistent with the deeper flow and deeper wells monitoring the bedrock interface at RSC, Inc landfill to the south. The bedrock elevations at the east end of the Jersey Sanitation Landfill are at an elevation that would logically serve as the upgradient end of the bedrock valley that forms under

RSC, Inc. landfill, described by Ms. Nelson.

Mr. Hunsberger provided the following response when asked if there could be a shallower permeable zone at the landfill, that is, a zone that might be transmitting the shallower groundwater identified at the landfill. He responded as follows (Tr. for the January 13, 2004 hearing date at 66):

> I have not seen them in the boring logs, and based on the depositional environment, you normally get those – where there is one there is usually more. In this system it is a very thick clay sequence with only lenses. Because the glacial depositional environment is very – over a large area, and these aren't outwashed deposits, which means they are due to melt water from a glacier, these are actual sediment deposits. So it is unlikely that you are going to see any additional extensive permeable zones that are going to transmit water. It has to do with the glacial environment or the depositional environment.

Ms. Nelson's description of how the shallower groundwater moved through the site consists of the following (Tr. for the January 13, 2004 hearing date at 74):

> I believe the downgradient wells, especially G105 and G106, are in an unconfined zone that is perched above the bedrock and is recharged by rainwater and by some groundwater and by any leachate coming out of the landfill.

As set forth above, the 1973 subsurface investigation indicated that ground water flow occurred mostly near the surface of the upper brown till at the Jersey Sanitation Landfill, and followed a southwesterly direction. As described by Ms. Nelson, the bedrock at Jersey Sanitation is covered by a silty clay layer that is covered by glacial till. It is the upper brown till that is discussed in the 1973 report. The report concluded that deeper continuous aquifers may be present:

> Subsurface Water
>
> Water was observed to enter borings 2 and 3 at depths of 10 and 17.5 feet, respectively. One-half to three-quarters of an hour after drilling the water levels in borings, 1, 2 and 3 were measured depths of 10.5, 6, and 20 feet, respectively. A 33-foot length of PVC pipe was installed in bore hold #2 for use as an observation well. Indications are that ground water flow occurs mostly near the surface of the upper brown till, and follows a southwesterly direction. Deeper continuous aquifers may be present.

Further, it was recommended in the report that monitoring wells be situated so as to monitoring both shallow and deep groundwater:

> Conclusions and Recommendations
>
> * * *
>
> It is further recommended that monitoring wells be installed in shallow and deep aquifers along the southwestern boundaries of the landfill. . . .
>
> * * *

The basis of Ms. Nelson's opinion that G103 does not exist in and is not screened in a continuous permeable zone that flows uphill and west at the Jersey Sanitation Landfill includes the following two points: First, borings directly west of the G103 wells do not show the sand/gravel zone nor weathered zone that appear in the G103 boring logs and are the most likely candidates to be conveying water at the G103 well. Therefore, the boring log for G103 and the borings to the west do not indicate a continuous, permeable zone. Secondly, based on a comparison of all the boring logs, none of the other logs resemble the profile at the G103 well, and therefore it appears to be an isolated well. The G103 boring log more closely resembles the boring logs for the RSC, Inc. Landfill, given the sand/gravel zone, than it does the other boring logs obtained from the Jersey Sanitation Landfill site. The downgradient wells are in a saturated zone, that is an unconfined zone flowing to the west. The G103 well is more likely screened in a deep zone flowing south, than in the same perched shallow zone flowing west. Tr. for the January 13, 2004 hearing date at 74-75. Mr. Nelson acknowledges that there is saturation right at the interface between the bedrock and the overlying relatively impermeable layer of silty clay, but she reads it as a thin sheet of saturation. Her opinion is that by no means does this thin line of saturation that occurs directly at the bedrock interface represent a continuous permeable zone that is transmitting westward flowing groundwater. Tr. for the

January 13, 2004 hearing date at 75 and 76 (lines 1-8).

Asked what kind of field work should be done to confirm the groundwater zones at the site so that the wells are monitoring the proper permeable zone, Ms. Nelson responded (Tr. at 78-79):

> Drilling operations and you could possibly use a Geoprobe, which is a less expensive method to do the drilling if you didn't want to use a regular drilling rig. But either way, regardless, the geology needs to be defined better, if someone wants to prove there is a continuous zone, that is. The samples need to be – the soil and the glacial tills need to be reviewed by a geologist on site through some kind of drilling operation.
>
> Also, I would recommend doing field slug tests to see what the hydraulic conductivity is for the zone that is being monitored. Because at RSC they did do an extensive investigation, but it included slug tests and they determined the hydraulic conductivity of the zone they are monitoring. So if you did that it might give you some more information to work on, if you are not getting the same hydraulic conductivities, which is the measurement of the ability fo the formation to transmit fluid related to permeability. If you are not getting the same kinds of hydraulic conductivities that could give you an indication that it is not the same zone. Of it you are getting similar ones, then it could be an indication that there is a similar zone.
>
> . . . Somehow you need to re-examine the sediments and if – to see if there is a permeable zone there. So that would take visual examination, because to me the boring logs with the current descriptions are not adequate to prove that there is a permeable zone throughout the site.

As stated above, despite permit conditions requiring assessment and demands by the Complainant and the Illinois EPA to conduct an assessment, Respondent Jersey Sanitation to date has failed and refused to perform a groundwater assessment at the landfill.

As is evident from the record of this proceeding, the Illinois EPA has documented its concern for the adequacy of Respondent's groundwater monitoring program for the landfill since 1989. Specifically, these concerns have included questions as to whether G103 is an appropriate upgradient well, that is, whether G103 is monitoring the same zone of groundwater

as the downgradient wells. Further, when exceedences of the groundwater quality standards were first detected, and as detections of exceedences continued and even increased in magnitude, the Illinois EPA re-iterated its concern regarding the upgradient well, and issued requirements for an evaluation of the groundwater monitoring plan and the exceedences themselves, to include verification of background levels and a groundwater assessment.

As stated above, testimony provided by Karen Nelson, Andrew Rathsack, Joyce Munie and Ken Liss support the conclusion that Jersey's present permit requires, given the history of exceedences in the downgradient wells at the site, a trend analysis and development of a groundwater assessment plan, to include field work and further analysis that will evaluate the appropriateness of G103 as an upgradient well, for submission to the Illinois EPA for approval. Upon approval, the assessment plan should be implemented and a course of corrective action to address exceedences should be developed and implemented.

H. <u>Groundwater violations have been ongoing for over 12 years.</u>

Respondent has violated five groundwater provisions for over 12 years. Results of samples from downgradient wells at the Jersey Sanitation Landfill first indicated exceedences on November 26, 1991. Despite demands and requirements upon the Respondent to evaluate its groundwater monitoring program and conduct a groundwater assessment at the landfill, Respondent has failed to perform either the evaluation or assessment and has failed to take any corrective action for groundwater at the landfill. Thus, violations of the five provisions have continued for over 12 years. The initial violation occurred on November 26, 1991. As of April 30, 2004, a total of 4,535 days will have elapsed since the initial groundwater violations at the Jersey Sanitation Landfill.

COUNT II

I. **The Respondent's violation of Section 21 (o)(2) and (3) of the Act, 415 ILCS 5/21(o)(2), (3), and 35 Ill. Adm. Code 807.314 due to its failure to control leachate at the landfill.**

Section 21 of the Act, 415 ILCS 5/21 (1994), provides, in pertinent part, as follows:

> No person shall:
>
> * * *
>
> o. Conduct a sanitary landfill operation which is required to have a permit under Section (d) of this Section, in a manner which results in any of the following conditions:
>
> * * *
>
> 2. leachate flows entering waters of the State;
>
> 3. leachate flows exiting the landfill confines;
>
> * * *

The definition of "leachate", "solid waste" and "waste" are defined as follows in the Board's Solid Waste Disposal Regulations, 35 Ill. Adm. Code 807.104:

> "LEACHATE" means liquid containing materials removed from solid waste.
>
> * * *
>
> "SOLID WASTE" means waste.
>
> * * *
>
> "WASTE" means any garbage, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility or other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, or from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under 35 Ill. Adm. Code 309.102 or Source, Special Nuclear, or by-product materials as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.) or any solid or

dissolved material from any facility subject to the Federal Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87) of the rules and regulations thereunder (Ill. Rev. Stat. 1983 Ch. 96 ½, Par. 7901.01 et seq. and 62 Ill. Adm. Code 1700 through 1845) (Section 3(11) of the Act).

Section 807.314 of the Board's Solid Waste Disposal Regulations, 35 Ill. Adm. Code 807.314, provides, in pertinent part, as follows:

Standard Requirements

Except as otherwise authorized in writing by the Agency, no person shall cause or allow the development or operation of a sanitary landfill which does not provide:

* * *

e) Adequate measures to monitor and control leachate;

At hearing, Rich Johnson testified to repeated observations of leachate seeping and flowing from the landfill. Referencing Parties Exhibit 10, a report for his January 23, 1991 inspection of the landfill, Mr. Johnson described the leachate seep depicted in photos 10, 11 and 12 of the report, that showed a leachate seep that was observed flowing from the landfill to Sandy Creek. Tr. at 125 (lines 13-18) and 126 (lines 5-7). Mr. Johnson also testified to the observations he made at the time of his May 21, 1991 inspection, documented in Parties Exhibit 18. He described the leachate seep depicted in photo 30 in the report for the May 21, 1991 inspection, which showed a leachate seep that flowed into Sandy Creek west of the landfill. As stated on page 7 of the narrative contained in Parties Exhibit 18, leachate seeps, flows and ponds were found on the northern and western region of the landfill at the time of the May 21, 1991 inspection and were depicted in the following photos contained in the report: 3, 5, 10, 21, 22, 27, 28, 29, 30, 38, 39. The inspector noted in his report that measures to control leachate were not evident at the time of the inspection. Leachate was emanating from areas adjacent to uncovered refuse. The report for the May 21, 1991 inspection includes results from samples

collected from leachate flows and seeps. The sample documentation includes a description of the liquid sampled. (Documentation for sample identified as L101, Parties Exhibit 18).

Mr. Johnson described the leachate seeps observed at the time of the November 19, 1991 report, depicted in photo 10 and also in the site sketch accompanying the report. At the time of the November 19, 1991 inspection, Mr. Johnson observed two leachate flows that entered the leachate collection pond. The leachate collection pond was designed to receive leachate drainage via a PVC pipe exiting from the interior of the landfill mound. It was not designed to receive flows that drained over and along the surface and finally into the pond. Several leachate flows and seeps, and surface leachate ponds, are documented on the site sketch that is part of the November 19, 1991 inspection report (Parties Exhibit 21, site sketch). Tr at 131 (lines 17-24), Tr at 132 (lines 1-24) and Tr at 133 (lines 1-2); Parties Exhibit 21. Mr. Johnson also testified that at the time of his February 25, 1992 inspection he observed a leachate seep, as depicted by photo 19 in his report for that inspection. A copy of the cover letter transmitting a copy of the inspection report to Respondent is included in the record of this proceeding as Parties Exhibit 23.

The report for the February 25, 1992 inspection indicates that dark stains from leachate seeps emanated from some of the areas of uncovered refuse. The leachate drained into the low area along the northern fill face and became a leachate flow. The leachate flowed along the northern fill boundary toward the west end of the site. Before reaching Sandy Creek, the leachate flow was absorbed into the ground. Another leachate flow was found emanating from the toe of the westernmost fill face. The flow went westward where it emptied into the leachate collection pond. There was a brownish sediment along the drainage pathway which appeared to be from contaminants in the leachate flow. Several leachate seeps and flows are documented on the site sketch included in the February 25, 1992 inspection report (Parties Exhibit 25, site sketch). Tr. at 134 (lines 11-24) and Tr at 135 (lines 1-2); Parties Exhibit 25. A

copy of the cover letter transmitting a copy of the inspection report to Respondent is included in the record of this proceeding as Parties Exhibit 26.

At hearing, Charles King testified that he made observations of leachate seeps at the landfill at the time of the January 21 and February 17, 1994 inspections, as depicted in photos 4/5, 4/6, 4/7 and 4/10 contained in the report of those inspections. Mr. King observed a leachate flow joining a run-off stream and then flowing directly into Sandy Creek. Both the run-off stream and the leachate flow were observed to originate at the filled area of the landfill. Parties Exhibit 31, pages 11 and 12 of the narrative. On pages 4 and 5 of the narrative, in Parties Exhibit 31, the inspector provides a detailed description of the leachate. Mr. King described a leachate stream he sampled that was flowing from the west side of the landfill mound, towards Sandy Creek . The leachate was chocolate brown in color, and had a white film on the surface in places. Brown bubbles were also noted on the stream surface. At one point, upstream of the widest point, an array of colors similar to those caused by motor oil in water, was observed in the leachate. The leachate stream emitted a slight malodorous smell (Parties Exhibit 31, page 5 of the narrative). Tr. at 162 (lines 1-17), 163 (lines 1-2), 164 (lines 6, 10-13). Tr. at 166 (lines 16-19), 168 (lines 18-23). Parties Exhibit 31. He also observed leachate streams at the time of the May 19, 1994 Illinois EPA sampling inspection. Tr. at 165 (lines 2-13). A leachate pop-out was observed on the west/northwest side of the landfill at the time of the June 6, 2000 inspection. It was located approximately 40 feet southwest of groundwater monitoring well G106. Parties Exhibit 43, page 4. A copy of the letter transmitting the report for the June 6, 2000 inspection is included in the record of this proceeding as the first page of Parties Exhibit 43.

At hearing, Karen Nelson, regional geologist for the Springfield Illinois EPA Region until 2001, and identified as Complainant's groundwater opinion witness in this matter, testified that she observed leachate seeps and flows at the landfill at the time of the Illinois EPA's May 17,

18 and 19, 1994 groundwater sampling inspection. The site map included with the report indicated the locations of the seeps. Tr. 262-265. Parties Exhibit 34, site sketch. At hearing, Ms. Nelson identified photos in the report that depicted leachate seeps and flows. Parties Exhibit 34, photos 0a, 1a, 16, 17, 19, 22, 23, 24. The photos included a depiction of a leachate flow that nearly reached Sandy Creek, but soaked into the ground just prior to reaching the surface water. Tr. at 264-265. Ms. Nelson's report included results of leachate samples collected at the time of the May 1994 sampling event. Ms. Nelson's testimony included a description of the appearance of the leachate.

Respondent Jersey Sanitation Corporation failed to install and maintain controls at the landfill so as to prevent and control leachate seeps and flows. Respondent failed to contain seeps, failed to install proper drainage channels to control fresh surface water from entering the landfill and conveying leachate, and failed to cover refuse so as to minimize contact with precipitation and drainage.

In Parties Exhibit 18 (May 21, 1991 inspection), on the third page of the narrative, the inspector, Rich Johnson, documented his observation that the drainage channel required along the north edge of the fill is no longer present. The channel was to keep run-off water from the north out of the filled areas. Special Condition 1 of Permit 1973-44-DE indicated that the landfill operation and the filled areas are to be protected from runoff. There was no drainage channel constructed along the northern boundary of the ravine at the time of the inspection.

In Parties Exhibit 21 (November 19, 1991 inspection), on the third page of the narrative, the inspector documented his observation that Special Condition 22 of the Supplemental Permit 1989-177-SP (dated 11-15-89) indicated that surface water ditches on the north and south side of Cells 1 and 2 for conducting run-off or run-on are to be maintained on a regular schedule. No ditch had been developed at the time of the inspection on the south side of Cells 1 and 2.

In all the inspection reports through 1994, Parties Exhibits 7, 10, 18, 21, 25, 27, 31, 34,

inspectors documented uncovered refuse.

Pursuant to the landfill's 1989 supplement permit, Supplemental Permit No. 1989-177-SP, issued November 15, 1989, an approvable leachate collection system plan was supposed to be submitted to the Illinois EPA permit section by January 15, 1990. Parties Exhibit 16, page 5. The Illinois EPA did not issue approval of leachate collection system plans submitted by the Respondent until approximately December 13, 1990. Parties Exhibit 11. At the time of an Illinois EPA inspection conducted on January 23, 1991, the inspector made the following observation (Parties Exhibit 10, page 2 of the narrative):

> "A liquid was observed flowing south of the leachate collection pond (see photos 11, 12 and 16). The liquid appeared to be groundwater originating from a bank composed of soil, tree trunks, bed springs and vehicle engines. The refuse in the bank suggested that the bank was partly filled with waste. The liquid leaving the bank left a rusty colored deposit on the bottom of the drainage ditch (see photo 26). There was also a slight sulfur odor emanating from around the flow. I followed the flow west to the point where it entered Sandy Creek. Photos 9 and 10 show the point where the leachate flow enters the creek. Before leaving the landfill, a sample of leachate was collected."

At the time of the May 21, 1991 inspection, the inspector observed leachate seeps as described in Parties Exhibit 18, page 1 of the narrative. On that date, leachate was observed flowing into Sandy Creek. Uncontrolled leachate flows and seeps were also observed at the time of the November 19, 1991 inspection (Parties Exhibit 21), the February 25, 1992 inspection (Exhibit 25), the January 21/February 17, 1994 inspection (Parties Exhibit 31), and that May 1994 Illinois EPA groundwater sampling event (Parties Exhibit 34).

On March 21, 1991, the Illinois EPA filed an administrative citation against Jersey Sanitation. Included in the allegations was violation of Section 21(p)(2) of the Act, Ill. Rev. Stat. 1989, ch. 111 ½ par. 1021(p)(2). Violation of what in 1991 was Section 21(p)(2), was cited in the second amended complaint of the instant action as Section 21(o)(2), 415 ILCS 5/21(o)(2). The basis of the allegation cited in the March 21, 1991 administrative citation was the January 23,1991 inspection conducted by Rich Johnson. The report for that inspection is included in the

record of this proceeding as Parties Exhibit 10. Respondent Jersey Sanitation Corporation did not file a Petition for Review in response to the administrative citation, and paid the penalty demanded in the citation on April 29, 1991. Parties Exhibits 11, 12, 13, 14, 16 and 17. Given that the January 23, 1991 violation of Section 21(o)(2) was satisfied with payment of administrative citation penalty, Complainant is not seeking relief for that allegation herein. However, evidence of the violation is being brought forth here as support for the Complainant's allegation that subsequent violations of Section 21(o)(2) were ongoing and repeat violations.

Based on the evidence presented at hearing, including exhibits admitted, Respondent Jersey Sanitation Landfill violated Section 21(o)(2) of the Act, 415 ILCS 5/21(o)(2) and 35 Ill. Adm. Code 807.314, by causing or allowing leachate to flow into Sandy Creek at the time of the February 17, 1994 inspection.

Based on the evidence presented at hearing, including exhibits admitted, Respondent Jersey Sanitation Landfill violated Section 21(o)(3) of the Act, 415 ILCS 5/21(o)(3) and 35 Ill. Adm. Code 807.314, by causing or allowing leachate to discharge from the landfill beyond the existing confines of the landfill at the time of the January 23, 1991 inspection, May 21, 1991 inspection, February 17, 1994 inspection, and May 1994 Illinois EPA sampling event.

Based on the evidence presented at hearing, including exhibits admitted, Respondent Jersey Sanitation Landfill violated 35 Ill. Adm. Code 807.314, by causing or allowing leachate to pop out at the landfill and thus exist in an uncontrolled and exposed condition on the surface of the land, at the time of the November 19, 1991 and June 6, 2000 inspections.

J. **The Respondent's violation of Section 12(a) and (d) of the Act, 415 ILCS 5/12(a), (d), and 35 Ill. Adm. Code 807.313, 314 and 315 due to its failure to control leachate at the landfill.**

Section 12(a) of the Act, 415 ILCS 5/12 (1994), provides, in pertinent part, as follows:

No person shall:

a. Cause or threaten or allow the discharge of any contaminants into the environment in any State so as to cause or tend to cause water pollution in Illinois, either alone or in combination with matter from other sources, or so as to violate regulations or standards adopted by the Pollution Control Board under this Act.

Section 12(d) of the Act, 415 ILCS 5/12(d), provides, as follows:

No person shall:

* * *

d. Deposit any contaminants upon the land in such place and manner so as to create a water pollution hazard.

Section 807.313 of the Board's Solid Waste Disposal regulations, 35 Ill. Adm. Code 807.313, provides as follows:

Water Pollution

No person shall cause or allow operation of a sanitary landfill so as to cause or threaten or allow the discharge of any contaminants into the environment in any State so as to cause or tend to cause water pollution in Illinois, either alone or in combination with matter from other sources, or so as to violate regulations or standards adopted by the Pollution Control Board under the Act.

Section 807.315 of the Board's Solid Waste Disposal regulations, 35 Ill. Adm. Code 807.315, provides as follows:

Protection of Waters of the State

No person shall cause or allow the development or operation of a sanitary landfill unless the applicant proves to the satisfaction of the Agency that no damage or hazard will result to the waters of the State because of the development and operation of the sanitary landfill.

Complainant's allegations of violation of Section 12(a) and (d), 415 ILCS 5/12(a), (d), and 35 Ill. Adm. Code 807.313, 314 and 315 are based on the same evidence described in Section I above. It will not be repeated here.

Jersey Sanitation Corporation Landfill was not certified closed until October 1999.

Parties Exhibit 42, Supplemental Permit 1999-209-SP acknowledging receipt of certification of completion of closure, dated October 5, 1999.

Respondent has allowed the release of flows, seeps and ponds of leachate onto the surface of the landfill so that it is exposed to any and all run-off surface waters and precipitation, and thereby Respondent Jersey Sanitation Corporation violated Section 12(a) of the Act, 415 ILCS 5/12(a), and 35 Ill. Adm. Code 807.313 and 315, by causing or allowing the discharge of leachate onto the surface of the landfill and into waters of the State so as to cause or tend to cause water pollution at the time of the January 23, 1991 inspection, May 21, 1991 inspection, November 19, 1991 inspection, February 17, 1994 inspection, the May 17, 18 and 19, 1994 Illinois EPA sampling event and June 6, 2000 inspection.

Respondent has allowed the release of flows, seeps and ponds of leachate onto the surface of the landfill so that it is exposed to any and all run-off surface waters and precipitation, and thereby Respondent Jersey Sanitation Corporation violated Section 12(d) of the Act, 415 ILCS 5/12(d), and 35 Ill. Adm. Code 807.314, by releasing, and thereby depositing, uncontrolled and uncontained leachate upon the land in such a place and manner as to create a water pollution hazard at the time of the January 23, 1991 inspection, May 21, 1991 inspection, November 19, 1991 inspection, February 17, 1994 inspection, the May 17, 18 and 19, 1994 Illinois EPA sampling event and June 6, 2000 inspection.

COUNT III

K. The Respondent's violation of Sections 12(a) and (d), 415 ILCS 5/12(a), (d), and Section 21(o)(1) of the Act, 415 ILCS 5/21(o)(1) due to the existence of refuse in flowing water at the landfill.

Section 12(a) of the Act, 415 ILCS 5/12 (1994), provides, in pertinent part, as follows:

No person shall:

a. Cause or threaten or allow the discharge of any contaminants into

the environment in any State so as to cause or tend to cause water pollution in Illinois, either alone or in combination with matter from other sources, or so as to violate regulations or standards adopted by the Pollution Control Board under this Act.

Section 12(d) of the Act, 415 ILCS 5/12(d), provides, as follows:

No person shall:

* * *

d. Deposit any contaminants upon the land in such place and manner so as to create a water pollution hazard.

Section 21(o)(1) of the Act, 415 ILCS 5/21(o)(1), provides, in pertinent part, as follows:

No person shall:

* * *

o. Conduct a sanitary landfill operation which is required to have a permit under Section (d) of this Section, in a manner which results in any of the following conditions:

1. refuse in standing or flowing waters;

* * *

Charles King, in his report for the February 17, 1994 inspection, documented his observations, at the time of the inspection, of refuse in flowing water in a ditch north of the filled area on the site, and his observation of refuse in erosion streams on the site. On page 4 of the report, Mr. King documented the following observations (Parties Exhibit 31, page 4 of the narrative):

> I followed the apparent erosion ditch north of the filled area, from west to east. It contained a steady runoff flow of water, with possible leachate stream infiltration. There were numerous runoff streams in the hundreds of crevices on the north side of the filled areas, that were tributary to the ditch, which was also tributary to Sandy Creek west of the landfill. Litter was noted in this flowing water at several locations.

Jersey Sanitation Corporation Landfill was not certified closed until October 1999. Parties Exhibit 42, Supplemental Permit 1999-209-SP acknowledging receipt of certification of completion of closure, dated October 5, 1999. Therefore, the Jersey Sanitation Landfill was

still considered an operating landfill at the time of the February 17, 1994 inspection and subject to Section 21(o)(1) of the Act, 415 ILCS 5/21(o)(1).

As described in Parties Exhibit 31, by allowing refuse to exist in flowing water at the landfill site, Respondent Jersey Sanitation violated Section 12(a) and (d), 415 ILCS 5/12(a), (d), and Section 21(o)(1), 415 ILCS 5/21(o)(1), at the time of the February 17, 1994 inspection.

COUNT IV

L. **The Respondent's violation of Sections 21(d) and (e), 415 ILCS 5/21(d), (e), and 35 Ill. Adm. Code 807.301 and 302 with respect to Supplemental Permit No. 1989-177-SP.**

Section 21 of the Act, 415 ILCS 5/21, provides, in pertinent part, as follows:

> No person shall:
>
> * * *
>
> d. Conduct any waste storage, waste treatment, or waste disposal operation:
>
> 1. Without a permit granted by the Agency or in violation of any conditions imposed by such permit, including periodic reports and full access to adequate records and the inspection of facilities, as may be necessary to assure compliance with this Act and with regulations and standards adopted thereunder; provided, however, that, except for municipal solid waste landfill unites that receive waste on or after October 9, 1993, no permit shall be required for (i) any person conducting a waste-storage, waste-treatment, or waste-disposal operation for wastes generated by such person's own activities which are stored, treated, or disposed within the site where such wastes are generated, or (ii) for a corporation organized under the General Not-For-Profit Corporation Act of 1986, as now or hereafter amended, or a predecessor Act, constructing a land form in conformance with local zoning provisions, within a municipality having a population of more than 1,000,000 inhabitants, with clean construction or demolition debris generated within the municipality, provided that the corporation has contracts for economic development planning with the municipality; or;
>
> 2. In violation of any regulations or standards adopted by the Board under this Act.

* * *

e. Dispose, treat, store or abandon any waste, or transport any waste into this State for disposal, treatment, storage or abandonment, except at a site or facility which meets the requirements of this Act and of regulations and standards thereunder.

Section 807.301 of the Board's Solid Waste Disposal Regulations, 35 Ill. Adm. Code 807.301, provides as follows:

Prohibition

No person shall cause or allow the operation of a sanitary landfill unless each requirement of this Subpart is performed.

Section 807.302 of the Board's Solid Waste Disposal Regulations, 35 Ill. Adm. Code 807.302, provides as follows:

Compliance with permit

All conditions and provisions of each permit shall be complied with.

1. **Respondent's violation of the final elevation and contours provisions of its permit.**

Pursuant to Supplemental Permit No. 1989-177-SP, issued November 18, 1989 for the Jersey Sanitation Landfill, the permit was issued in accordance with the final plans, specifications, application and supporting documents as submitted by Heneghan Associates, Engineers for Jersey Sanitation Corporation, dated July 18, 1989 and October 25, 1989. Parties Exhibit 6. The final contours are set forth within the plans submitted on a site map entitled "Proposed Final Contours", included in a July 18, 1989 submittal from Heneghan Associates. Parties Exhibit 3. Pursuant to Standard Condition 3 of the permit, there shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued. Parties Exhibit 6.

No supplemental permit modifying the final elevations of the landfill was issued until October 5, 1999. Item B on page 2 of Supplemental Permit No. 1999-209-SP indicates approval of the revision to the final contours in accordance with the Certification of Siting Approval from the Jersey County Board dated March 8, 1999. Parties Exhibit 42.

At the time of a January 23, 1991 inspection of the Jersey Sanitation Landfill, Rich Johnson, documented observations that the landfill elevation in the central region of the ravine at the landfill appeared to be higher than indicated by the site plans (Parties Exhibit 10 at page 5 of the narrative):

> The latest Agency approved plans by Heneghan Associates dated 7-18-89 show the elevation of the ground west of the equipment shed as being 597 MSL. The highest filled elevation of the ravine to the north of the 597 MSL elevation was supposed to be 580 MSL. It was noted when looking north from west of the equipment shed that the fill area was above the ground level where I was standing (see photo 15). It appears that the fill in the central region is higher than the final elevation approved by the Agency.

As is evident from Parties Exhibit 12, page 2, a copy of the January 23, 1991 inspection report that contained these observations and the allegation of apparent violation of final elevation and contours was sent to the Respondent, on or before March 21, 1991.

At the time of a May 21, 1991 inspection of the Jersey Sanitation Landfill, Rich Johnson, Illinois EPA inspector assigned to the landfill, documented observations that the landfill elevation in the central region of the ravine appeared to be higher than the approved final contours, and also that the filled lift in the central region did not conform with approved final contours. Parties Exhibit 18, page 3 of the narrative. The inspector documented the observations with photos 1, 13 and 37 contained within the inspection report.

The same observations were made at the time of the November 19, 1991 inspection. In addition, the inspector observed that additional refuse had been deposited on the eastern region of the landfill in Cells 1 and 2. Parties Exhibit 21. The added lift of refuse in the eastern

region was observed to apparently also exceed the final elevation permitted in this area of the landfill. Pursuant to plans submitted by Heneghan Associates on July 18, 1989, final cover was applied to Cell 1 in 1983. Parties Exhibit 3, page 1 of sheets attached to the completed application. A copy of the cover letter transmitting a copy of the inspection report to Respondent is included in the record of this proceeding as Parties Exhibit 23.

The same observations were made at the time of the February 25, 1992 inspection. Parties Exhibit 25. Photos documenting these observations are contained within the report for the February 25, 1992 inspection. Parties Exhibit 25, Photos 1, 3 and 10. A copy of the cover letter transmitting a copy of the inspection report to Respondent is included in the record of this proceeding as Parties Exhibit 26.

At the time of a September 21, 1992 inspection at the landfill, the Illinois EPA inspector again documented his observation of elevations above permitted final contours. Parties Exhibit 27, page 2 of the narrative. A copy of the cover letter transmitting a copy of the inspection report to Respondent is included in the record of this proceeding as Parties Exhibit 29.

At the time of the January 21, 1994 inspection, Charles King made the following observations and documented in his inspection report (Parties Exhibit 31, page 2 and 3 of the narrative):

> The landfill appeared to be grossly over height. . . . The peak elevation appeared to be close to the center of the mound, and was approximately ten feet higher than at the east of the mound. . . .
>
> Photo #2 depicts the landfill mound to the north of the equipment shed. Mr. Johnson is standing in the photo to demonstrate the height of the mound. The mound at this location is supposed to be lower than the ground surface at the shed, according to approved plans. This photo clearly demonstrates that the landfill is over its permitted height. . . .

The inspector's specific documentation of alleged failure to comply with the permitted final contours appears on page 8 and page 14 of the narrative in the inspection report (Parties Exhibit 31). The 1992 submittal referenced in the final quotation, "Biennial Review of the

Closure Plan, Post-Closure Care Plan and Cost Estimates for the Jersey Sanitation Corporation Landfill", submitted by Andrews Environmental Engineering, Inc. in November 1992, is included in the record of this proceeding as Parties Exhibit 28. The map contained within the 1992 submittal referenced in the quotation is contained within the exhibit as an oversized attachment, entitled "Existing Site Conditions at the Jersey Sanitation Landfill":

> The height elevation limit at the landfill appears to have been exceeded above Agency approved final elevations. Agency approved plans by Heneghan Associates (submittals dated July 18, 1989), and a sketch provided by Andrews Engineering, Inc, dated October 1992 (submitted with their November 12, 1992 Biennial Review of the Closure Plan), shows height limits at the equipment shed, being approximately 598 feet. The 1992 sketch is a contour map that shows existing site contours, and a height of 617.3 feet at its highest point, near the center of the landfill. The highest filled elevation is supposed to be 600', per the permit application that was approved and became part of Supplemental Permit No. 1989-177-SP, issued on November 15, 1999. Directly north of the equipment shed on-site, the landfill is supposed to be at a lower elevation than the ground level at the shed. However, it is at least 15' over height at that location.
>
> The elevation of the filled lift in the central part of the filled area of the landfill, does not conform with Agency approved final contours. In approved plans, the final elevation shows a smooth crown in elevation, gradually declining from east to west. The inspection revealed over height mounds to the east and west, and a gully in the middle running north/south, interrupting a gradual slope downward from east to west.

Contained within the June 1999 submittal from Andrews Environmental Engineering Inc. for Jersey Sanitation Corporation Landfill, entitled "Application for Supplemental Permit: Facility Closure Certification, Revised Final Contours, Biennial Revision of Closure and Post-Closure Care Plans and Cost Estimates", is a drawing labeled D1-3 that shows existing contours at the landfill in 1995. Parties Exhibit 41. Respondent did not receive approval of these contours until October 1999. At the time when this drawing was generated, it shows that Respondent was in violation of its existing permitted final contours.

At the time of a November 19, 1998 inspection, the inspector documented his observation that the landfill mound continued to exist at the site 15 feet over height, on page 3 of the narrative, and he cited it as a violation of permit provisions on page 5 of the checklist.

Parties Exhibit 40.

Respondent's violation of permitted final contours continued until Respondent received certification of siting approval from the Jersey County Board for the revised final contours. This approval was received on March 8, 1999 and documentation of the approval is contained within Parties Exhibit 41, Attachment 4. The Illinois EPA did not approve the revised final contours until it issued Supplemental Permit 1999-209-SP on October 5, 1999. Parties Exhibit 42. The first violation was January 23, 1991. These violations, both the violation of final elevation and the violation of final contour, continued until October 5, 1999, or for 8 years and 253 days, which is a total of 3,173 days after the first day of violation. The violation of these two permit provisions constitute two violations of Section 21(d)(1) and (2) and Section 21(e), 415 ILCS 5/21(d)(1), (2) and (e), and 35 Ill. Adm. Code 807.301 and 302.

2. Respondent's violation of its permit requirement to maintain surface water ditches on the north and south side of the landfill.

Special condition 22 of Respondent's Supplemental Permit 1989-177-SP, provides as follows:

> 22. Surface water ditches on the north and south side of cells 1 and 2 (shown on the development permit application) that conduct run off or run on water away from the landfill shall be maintained on a regular schedule.

Illinois EPA inspectors documented their observations that the drainage ditch that was to be developed for the south side of the landfill had not been developed at the time of the following inspections: May 21, 1991 (Parties Exhibit 18, page 3 of the narrative, at the end of the notation regarding final contours.); November 19, 1991 (Parties Exhibit 21, page 3 of the narrative, at the end of the notation regarding final contours and Item 3 on that page.); February 25, 1992 (Parties Exhibit 25, page 4 of the narrative, at the end of the notation regarding final contours and Item 3 on that page.); January 21 and February 17, 1994 (Parties Exhibit 31,

page 8 of the narrative, Item C.); November 19, 1998 (Parties Exhibit 40, page 5 of the checklist).

Illinois EPA inspectors documented their observations that the drainage ditch that was to be developed and maintained for the north side of the landfill was not being maintained at the time of the following inspections: May 21, 1991 (Parties Exhibit 18, page 3 of the narrative):

> The drainage channel required along the north edge fo the fill is no longer present. The channel was to keep run-off water from the north out of the filled areas. Special Condition 1 of Permit 1973-44-DE indicated that the landfill operation and the filled areas are to be protected from runoff. There was no drainage channel constructed along the northern boundary of the ravine at the time of the inspection.;

January 21 and February 17, 1994 (Parties Exhibit 31, page 8 of the narrative, Item C.):

> . . . No ditch has been developed on the south side, and the ditch on the north side appears to have been formed naturally via erosion, since it is not straight and meanders. It definitely has not been maintained, since its internal depth and width fluctuates, and litter is abundant in the ditch.;

and November 19, 1998 (Parties Exhibit 40, page 5 of the checklist).

Respondent's violation of Special Condition 22 of Supplemental Permit No. 1989-77-SP was initially observed on May 21, 1991, and continued until at least November 19, 1998. The first violation was May 21, 1991. This violation continued for 2,736 days after the initial day of the violation. The violation of this permit provision constitutes a violation of Section 21(d)(1) and (2) and Section 21(e), 415 ILCS 5/21(d)(1), (2) and (e), and 35 Ill. Adm. Code 807.301 and 302.

3. Respondent's violation of its permit requirement to conform its groundwater monitoring wells and facilities to the approved monitoring plan.

Special condition 13 of Supplemental Permit 1989-177-SP provides as follows (Parties Exhibit 6):

> Construction, Design and Maintenance of groundwater monitoring wells and

facilities shall conform to the following attachments which are included:

Attachment B)	Groundwater Monitoring Conditions
Attachment C)	Diagram of Monitoring Well Construction
Attachment D)	Monitor well plugging procedures

Item No. 3 of Attachment B, Groundwater Monitoring Conditions, provides as follows (Parties Exhibit 6):

> 3. All borings/wells not used as monitoring points shall be backfilled in accordance with the attached IEPA monitor well plugging procedures.

Item No. 1 of Attachment A of the water monitoring program approved within the permit identifies wells G101 and G102 as monitor point(s) deleted from the monitoring program. Parties Exhibit 6.

Inspector Rich Johnson documented the fact that well MW5 remained on the site, and had not been properly abandoned and plugged at the time of the following inspections: August 30, 1990 (Parties Exhibit 7, page 7-8 of the narrative); January 23, 1991 (Parties Exhibit 10, page 5 of the narrative); May 21, 1991 (Parties Exhibit 18, page 3 of the narrative); November 19, 1991 (Parties Exhibit 21, page 3 of the narrative, Item 5); February 25, 1992 (Parties Exhibit 25, page 4 of the narrative, Item No. 5).

In Parties Exhibit 31, page 8 of the narrative at Item D, the inspector observed the existence of the two wells, MW1 and MW5, and further documented that MW5 was to have been properly abandoned and plugged pursuant to Special Condition 13 of Permit 1989-177-SP. A file search did not reveal that the well had been properly plugged at the time of the January 21/February 17, 1994 inspection.

In Parties Exhibit 40, on page 3 of the narrative, the inspector documented the following observation on November 19, 1998: "MW5 . . . designated G102 by the Agency, should have been properly abandoned and plugged. As discussed in previous reports, that well is not used

as a monitoring point and should be backfilled in accordance with the IEPA monitor well plugging procedures. A file search did not reveal that this had been done for MW5. On the other hand, Karen Nelson, staff geologist, DLPC/FOS - Springfield Region, feels that MW5 serves as a shallow well and should be monitored along with deep well G103. On the date of the inspection, both well casings appeared to be in good condition, were marked and were locked."

Failure to plug the well, or submit an application for a supplemental permit to modify the groundwater monitoring program so as to provide for the maintenance of the MW5 well, is a violation of Special Condition 13 of Supplemental Permit No. 1989-177-SP. No evidence exists within the record of this proceeding that the MW5 well, also known as the G102 well, has been plugged. No supplemental permit application exists within the record, that requests inclusion of this well in the current water monitoring program. No evidence was presented at hearing controverting Complainant's claims that the well has not been plugged. The first violation of this permit provision was documented at the time of the August 30, 1990 inspection. After the initial violation, this violation has continued for 13 years and, as of April 30, 2004, 213 days, or a total of 4,958 days. Violation of Special Condition 13 of Permit No. 1989-177-SP constitutes a violation of Section 21(d)(1) and (2) and Section 21(e), 415 ILCS 5/21(d)(1), (2) and (e), and 35 Ill. Adm. Code 807.301 and 302.

4. <u>Respondent's failure to comply with the terms of its permit with regard to hours of operation.</u>

Special condition 24 of the Respondent's Permit No. 1989-177-SP provides as follows:

24. The operating hours for this facility will be 9:00 a.m. to 6:00 p.m. on Monday and 9:00 a.m. to 3:00 p.m. Tuesday through Saturday. No work is planned for Sunday or holidays.

An observation of a truck hauling waste onto the landfill site prior to 9:00 a.m. was

documented by Illinois EPA inspector Rich Johnson as the time of an August 30, 1990 inspection (Parties Exhibit 7, page 6 of the narrative):

> A packer truck marked Bob Sanders (phone 465-8461 or 372-4315, Alton, Illinois) entered the landfill prior to 9 A.M. Mr. Croxford [earlier identified as the certified operator of the landfill] was told that the site' operating hours were 9 A.M. to 6 P.M. on Mondays and 9 A.M. to 3 P.M. on Tuesdays through Saturdays. When asked if the Sander's truck dump[ed] before the permitted hours, Mr. Croxford acknowledged that they did. He said he was only recently hired to operate the site and he wasn't fully aware of the times the landfill was to accept waste. Photo 28 shows the posted hours at the entrance to the landfill. The hours on the sign identify certain hours and days that the landfill accepts waste. None of the hours indicate operations prior to 9 A.M. I told Mr. Croxford that a change of operation would require a supplemental permit.

At the time of the August 30, 1990 inspection, Respondent violated Special Condition 24 of Permit No. 1989-177-SP, and thereby violated Section 21(d)(1) and (2) and Section 21(e), 415 ILCS 5/21(d)(1), (2) and (e), and 35 Ill. Adm. Code 807.301 and 302.

5. Respondent's failure to provide a narrative demonstration that its water monitoring program is capable of determining groundwater quality flowing onto and unaffected by the landfill, assess current contribution of the existing landfill on groundwater quality and determine if a release to groundwater is occurring by April 15, 1991.

Special condition 11(b) of Respondent's Permit No. 1989-177-SP provides as follows:

> The applicant shall provide a narrative demonstration that the revised monitoring program for Jersey Sanitation Corporation Landfill is capable of determining groundwater quality flowing onto and unaffected by the landfill, assess current contribution of the existing landfill on groundwater quality and determine if a release to groundwater is occurring. This information and study, shall be submitted to this Agency by by April 15, 1991 with other required fourth quarter "background" groundwater monitoring information required in this permit Attachment "A" Condition No. 5.

Illinois EPA inspector Rich Johnson documented Respondent's failure to meet the April 15, 1991 deadline, in his report for his May 21, 1991 inspection of the landfill (Parties Exhibit 18, page 3 of the narrative, last item on that page).

On April 8, 1991, Henneghan and Associates submitted a document entitled

Groundwater Monitoring Narrative and was noted to be "as required per Paragraph 11.b of the November 15, 1989 letter from IEPA granting supplemental permit." Parties Exhibit 15.

On August 14, 1991, the Illinois EPA issued a letter in response to the April 8, 1991 submittal, stating the submittal failed to demonstrate that the revised monitoring program is capable of determining groundwater quality flowing onto and unaffected by the landfill. The letter states that the submittal provides no evidence that the operator can control, minimize or eliminate the post-closure releases to groundwater, since the narrative fails to prove that the operator can even detect a release to groundwater if it occurs. The letter sets a new deadline for the required re-submittal to be 60 days of the date of the letter. Parties Exhibit 19.

On October 10, 1991, Heneghan and Associates submitted a document entitled Groundwater Monitoring Narrative – Supplement Permit, for Jersey Sanitation Corporation. Parties Exhibit 20.

On January 8, 1992, the Illinois EPA denied the application for a supplemental permit in a letter dated January 8, 1992. Parties Exhibit 24. It was denied because the application failed to meet the requirements of Special Condition 11(b) and verify that what was identified as upgradient groundwater was from the same permeable zone as downgradient groundwater. The denial extended the deadline for submittal of information that would meet the requirements of Special Condition 11(b) of Permit No. 1989-177-SP until April 15, 1992. Parties Exhibit 24, page 2.

The next submittal from Respondent Jersey Sanitation Corporation was the November 1992 Biennial Review of the Closure Plan, Post-Closure Plan and Cost Estimates for the Jersey Sanitation Corporation Landfill, submitted by Andrews Environmental Engineering, Inc. Parties Exhibit 28.

No subsequent submittal from Respondent addressed the requirements of Special Condition 11(b) of Permit No. 1989-177-SP.

On page 28 of Parties Exhibit 34, the author of the exhibit, Ms. Nelson, quoted from the November 1992 submittal, Respondent Jersey's permit application (log 1992-350), wherein Jersey's consulting engineers, Andrews Engineering, in 1992, noted that "in reviewing the last four quarters of groundwater monitoring results, it appears certain parameters tested for in monitoring well G105 may have increased in the last two quarters. . . . Sampling results will be monitored closely for the next two or three quarters. If an adverse trend is confirmed, an assessment will be conducted."

The next supplemental permit to be issued to Respondent Jersey Sanitation was Supplemental Permit No. 1992-350-SP. It appears in the record as Parties Exhibit 30. Included in the permit is a statement that the permit conditionally approves the groundwater monitoring plan. Under Item A of the permit, it is stated that the water monitoring program is approved in accordance with Attachments to the permit, and is subject to the conditions contained therein. Attachment A to the permit is the Groundwater Monitoring Program. Attachment A includes requirements that the monitoring program be capable of determining background groundwater quality hydraulically upgradient and unaffected by the units and to detect any discharge of contaminants from any part of a potential source of discharge from the units. Parties Exhibit 30, Attachment A, Item 1. Attachment A requires the landfill to statistically evaluate the groundwater monitoring data to provide statistical comparisons between upgradient and downgradient groundwater quality data. Parties Exhibit 30, Attachment A, Item 4. In the event a significant change in groundwater quality occurs, Jersey Sanitation was to submit a groundwater assessment plan to the Illinois EPA for approval, and was to be implemented within 30 days of approval. An assessment report was to be submitted, and a proposed corrective action plan submitted and implemented within 30 days of approval. Parties Exhibit 30, Attachment A, Item 8.

Item 22 of Attachment A of Permit No. 1992-350-SP states as follows:

> Annually, the operator shall prepare an assessment of the monitoring program which shall include an evaluation of the groundwater flow direction and the hydraulic gradients at the facility. This assessment shall be submitted with the monitoring results due on July 15.

As documented in Parties Exhibit 34, the first annual assessment that was to be submitted in response to this condition was due on July 15, 1994. At the time that Ms. Nelson issued her report on the Illinois EPA's May 1994 sampling event at the landfill, the annual assessment had not bee received. Ms. Nelson's report was issued in October 1994. Parties Exhibit 34, page 33.

Included among the list of violations documented at the time of the November 19, 1998 inspection, is a violation noted on page 6 of Parties Exhibit 40, which reads as follows: "Attachment A, Special Condition 22. The Respondent has failed to provide to the Agency an assessment report of the monitoring program to include an elevation of the groundwater flow direction and the hydraulic gradients of the facility."

As documented in Charlie King's report regarding his May 17, 2002 inspection of the Jersey Sanitation Corporation Landfill, Respondent had never complied with Item 22 of Attachment A of Permit No. 1992-350-SP as of the date of the inspection. Mr. King testified that Respondent Jersey has since May 17, 2002 not submitted, nor has ever submitted, an annual assessment in compliance with item 22 of Attachment A of Permit No. 1992-350-SP. Tr at 172 -175.

Respondent Jersey Sanitation failed to comply with the requirements of Special Condition 11(b) of Permit No. 1989-177-SP, from the time of the initial deadline of April 15, 1991 until new water monitoring program permit requirements went into effect on February 8, 1993. Respondent's failure to comply with Special Condition 11(b) is a violation of Section 21(d)(1) and (2) and Section 21(e), 415 ILCS 5/21(d)(1), (2) and (e), and 35 Ill. Adm. Code 807.301 and 302. The initial violation occurred on April 15, 1991. The continuing violation of

the permit provision existed for 664 days.

6. **Respondent's failure to obtain a supplemental permit to conduct landscape waste compost operations.**

At the time of the August 30, 1990, January 21, 1991 and May 21, 1991 inspections (Parties Exhibits 7, 10 and 18) of the site, Illinois EPA inspector Rich Johnson observed accumulations of landscape waste at the site. At the time of the August 30, 1990 inspection, he made the following observations (Parties Exhibit 7, page 3-4 of the narrative):

> It was noted during the inspection that bags (biodegradable) of landscape waste (mostly leaves) and tree clippings has been deposited south of the on-site barn. Mr. Croxford [the certified operator for the site] said the landfill has been receiving weekly loads from the City of Jerseyville with landscape waste. They propose to compost the landscape waste sometime in the near future. It should be noted that the landfill does not have a supplemental permit to compost the landscape waste.

The permit in effect for Jersey Sanitation Corporation at the time of these three inspections was Permit No. 1989-177-SP. Parties Exhibit 6. There is no provision in the permit for compost operations, and Respondent was unable to produce a permit for composting operations. Mr. Johnson cited the existence of landscape waste on the property to be a violation of 35 Ill. Adm. Code 807.302 in his inspection report. Parties Exhibit 7, page 11.

A response to the allegation of an unpermitted composting operation existing on the site was received from the Respondent, authored by Pam Shourd, by the Illinois EPA on January 2, 1990. Parties Exhibit 11, page 2. Ms. Shourd claimed that the composting was being conducted on farm property belonging to CRS, Partnership.

Mr. Johnson again observed landscape waste on the subject property at the time of the January 23, 1991 inspection. Parties Exhibit 10, page 2 and 3 of the narrative.

> South of the equipment shed were piles of landscape waste. These piles included tree and shrub trimmings and bags of leaves (see photos 16, 17, 18, 19 and 21). Mr. Cronin [identified as a shareholder in the landfill] said that he was

expecting a man with a wood chipper to arrive at the site sometime during the day of the inspection to chip up the tree limbs and shrubbery. No one arrived with a chipper during the inspection.

A letter from Mrs. Shourd dated 12-13-90, indicated that the property on which the compost was setting was not on the landfill. The letter identified the property as belonging to CRS, Partnership. However, a review of the landfill's past drawings appear to show the area where the landscape waste (LW) has been placed is part of the landfill. Mrs. Shourd was told during the inspection that the landfill would be required to have a supplemental permit to conduct a composting operation. She mentioned that she did not think that an Agency permit was necessary if the LW was applied to a farm at an agronomic rate. However, it was landfill property on which the LW was stored. While the adjacent farm field to the east of the landfill was reportedly the location where the LW was to be applied, it was noted that some type of crop (probably winter wheat) was being grown on it. This would mean that the LW would not be incorporated into the field until after the crop was harvested.

The following observations were made at the time of the May 21, 1991 inspection (Parties Exhibit 18, page 2 of the narrative):

Landscape waste was again observed south of the equipment shed (see photos 33, 34 and 36). Most of the leaves and tree and shrub trimmings observed on the January 23, 1991 inspection have been removed. Mr. Laird [the on-site operator at the time] said Mr. John Cronin (one of the officers of Jersey Sanitation Corporation) had taken most of the leaves off-site. He was not sure where the leaves went. A small pile of leaves remained south of the equipment shed. It appeared that earthmoving equipment was used to scrape the leaves and trimmings up. The bed of the dump truck was full of tree and shrub trimmings. Mr. Laird indicated these were to be removed from the landfill in the near future. Several bags of grass clippings and a pile of tree trimmings were observed on the ground near the access road southeast of the equipment shed. Mr. Laird said the landfill still gets an occasional load of landscape waste from the City of Jerseyville. According to Mr. Laird, the landfill does not intend to compost landscape waste, however, it still appears to be handling the City's landscape waste.

Wood chips were noted east of the equipment shed. Mr. Laird said they give the wood chips away to anyone that wants them. The wood chips are apparently the tree and shrub trimmings that were previously chipped at the landfill.

Whether or not the landscape waste was actually on the property, it is clear from the evidence that Respondent was conducting an unpermitted landscape waste disposal and compost operation at the site of the Jersey Sanitation Landfill. If the landscape waste was

within the boundaries of the landfill, it was a waste and compost operation that was not permitted by Respondent's landfill permit. If the waste existed on property outside the boundaries of the landfill, it was a landscape waste and compost operation for which Respondent should have acquired a permit and did not. None of Mr. Johnson's observations indicated that the landscape material was currently land applied at agronomic rates at the time of his observation.

Respondent's acceptance of landscape waste at the landfill site was an unpermitted activity, and thereby constituted a violation of Section 21(d)(1) of the Act, 415 ILCS 5/21(d)(1). The first violation was observed on August 30, 1990. The violation was continuing and on-going at least up until the time of the May 21, 1991 inspection. The violation continued for 263 days.

M. The Respondent's violation of Sections 21(d) of the Act, 415 ILCS 5/21(d), and 35 Ill. Adm. Code 807.301 and 302 with respect to Supplemental Permit No. 1992-350-SP.

1. Respondent's failure to comply with Special Condition A.3 and A.4 of Permit No.1992-350-SP

Section A of the special conditions contained within Permit No. 1992-350-SP pertain to the landfill's water monitoring program. Parties Exhibit 30. Special conditions A.3 and A.4 of Permit No. 1992-350-SP, provide as follows (Parties Exhibit 30, page 2):

> 3. The applicant should provide the sampling procedures and detection monitoring methods to the Agency.
>
> 4. The applicant should submit the background summary of values used to generate the potentiometric map surfaces.

Illinois EPA inspector Charlie King documented that Respondent had not complied with Special Condition A.3 and A.4 at the time of the January 21/February 17, 1994 inspection (Parties Exhibit 31, page 9 of the narrative, Items F and G), and the November 19, 1998

inspection (Parties Exhibit 40, page 5 - 6 of the checklist).

Respondent failed to comply with Special Conditions A.3 and A.4 of its supplemental permit No. 1992-350-SP, and thereby violated Section 21(d), 415 ILCS 5/21, and 35 Ill. Adm. Code 807.302. The first violation was documented at the time of the February 17, 1994 inspection. The violation was continuing and ongoing until at least the time of the November 19, 1998 inspection. The violation continued for a period of 1,734 days.

2. **Respondent's failure to comply with Special Condition B.6 of Permit No.1992-350-SP**

Special Condition B.6 of Permit No. 1992-350-SP requires placement of final cover on the landfill. The condition appears on page 3 of the permit. Parties Exhibit 30, page 3.

As documented in his report regarding the January 21/February 17, 1994 inspection of the Jersey Sanitation Corporation Landfill, Respondent had failed to meet the requirements of Special Condition B.6 at the landfill. Final cover was not in place at the landfill at the time of the inspection. Included in the inspection report is Attachment A of the Respondent's Closure Plan, which appeared in the November 1992 supplemental permit application submitted by Andrews Engineering for Jersey Sanitation Corporation, and which constitute a part of Permit No. 1992-350-SP. The schedule contained in the plans as Attachment A indicate that the final protective layer was to be in place, at most, within ten weeks of initiation of closure. Jersey Sanitation Corporation Landfill ceased accepting waste on September 17, 1992. The final cover should have been in place by November 30, 1992. Parties Exhibit 30, page 11 of the narrative.

Special Condition B.6 includes the requirement that: "Compaction test results, moisture-density curves (ASTM D698) and related soil data must be submitted to the Agency with the plan sheets an closure affidavits required by 35 Ill. Adm. Code Section 807.508." Mr. King documented, in his report regarding his November 19, 1998 inspection, that Respondent had not submitted the requisite data and closure affidavits to the Illinois EPA at the time of the

inspection.

Respondent failed to comply with Special Condition B.6 of its permit by failing to secure final cover on the landfill by November 30, 1992, and by failing to submit the information required by 35 Ill. Adm. Code 807.508 at least until the time of the November 19, 1998 inspection. The first violation of this permit condition occurred on December 1, 1992. The continuing violations occurred over a period of 2,130 days. By failing to comply with Special Condition B.6, Respondent violated Section 21(d)(1) and (2), 415 ILCS 5/21(d)(1), (2), and 35 Ill. Adm. Code 807.301 and 302.

3. Respondent's failure to comply with Item 10 contained in Attachment A to Permit No.1992-350-SP

Attachment A to Respondent's Supplement Permit No. 1992-350-SP is the landfill's groundwater monitoring plan. Item 10 of Attachment A states as follows.

> 10. A padlocked protective cover must be installed over the portion of the well casing extending above the ground surface to protect against damage.

Illinois EPA inspector Charlie King documented his observation that the monitoring well G104 was observed unlocked at the time of the February 17, 1994 inspection. Parties Exhibit 31, page 6 of the narrative and photo No. 4 from roll #124, and page 10 of the narrative, item L.

Respondent failed to comply with Item 10 of Attachment A of its permit at the time of the February 17, 1994 inspection, and thereby violated Section 21(d)(1) and (2), 415 ILCS 5/21(d)(1), (2), and 35 Ill. Adm. Code 807.301 and 302. This observation constituted a single occurrence of the violation.

4. Respondent's failure to comply with Permit No. 1992-350-SP Attachment A Special Conditions 5(a), 6(b), 8, 16, 20, 21 and 22

Supplemental Permit No. 1992-350-SP, Attachment A, Special Conditions 5(a), 6(b), 8, 16, 20, 21 and 22 provide as follows:

5. For each sampling event, . . . the permittee must determine if a significant change in groundwater quality has occurred by:

   a. Comparing sample results from each downgradient and upgradient well to the background data established during the first year of monitoring from the upgradient well, in order to determine whether a significant change has occurred. This comparison must separately evaluate each parameter for each well.

* * *

6. The permittee shall conclude that a significant change in groundwater quality has occurred if he results of the evaluation in Item No. 5 above indicate that the value for any parameter exceeds

* * *

   b. The applicable groundwater quality standards listed in Subpart D of 35 IAC Part 620 Standards.

* * *

8. In the event a significant change in groundwater quality has occurred or has been confirmed, the permittee shall:

   a. Notify the IEPA, Division of Land Pollution Control, Permit Section, in writing, within 10 days of the change in groundwater quality, identifying each well and each parameter;

   b. Submit an assessment monitoring plan within 30 days of the significant change as determined in Item No. 6 or Item No. 7 above in the form of a supplemental permit application.

* * *

16. Surveyed elevation of stick-up is to be reported when the well is installed (with as-built diagrams) and every two years, or whenever the elevation changes.

* * *

20. The first quarterly statistical evaluations shall be performed on samples taken during the months of April-May and the results submitted to the Agency by July 15, 1993.

21. Comply with quarterly schedule for collection and submission of monitoring results.

22. Annually, the operator shall prepare an assessment of the monitoring program which shall include an evaluation of the groundwater flow direction and the hydraulic gradients at the facility. This assessment shall be submitted with the monitoring results due on July 15.

Ms. Nelson, in her report regarding the Illinois EPA's May 1994 sampling event conducted at the landfill, documented the fact that the Illinois EPA had not received the evaluation required by Special Condition 5(a). Pursuant to Special Condition 20, the evaluation required by Special Condition 5(a) was to be received by the Illinois EPA by July 15, 1993. Parties Exhibit 34, page 31. At the time Ms. Nelson generated her report, October 24, 1994, the evaluation had not been received by the Illinois EPA. As of October 24, 1994, the evaluation required by Special Condition 5(a) was 466 days overdue. At hearing, Mr. King testified that Respondent Jersey never had submitted the evaluation required by Permit No. 1992-350-SP Attachment A Special Conditions 5(a) and 20. Tr at 172 -175. Permit No. 1992-350-SP was in effect until October 5, 1999, when the Illinois EPA issued Permit No. 1999-209-SP. Failure to comply with these permit conditions until the time at which the new supplemental permit was issued represents an additional 1,806 days of continuing violation. The total number of days the Respondent violated this condition is 2,272 days.

Respondent failed to comply with Attachment A, Special Conditions 5(a) and 20 of its Permit No. 1992-350-SP, and thereby violated Section 21(d)(1) of the Act, 415 ILCS 5/21(d)(1).

At the time of the November 19,1998 inspection, the Illinois EPA inspector documented that Respondent had failed to comply with Attachment A, Special Condition 6(b) and 8. Parties Exhibit 40, page 6 of the checklist. At hearing, Mr. King testified that Respondent Jersey Sanitation Corporation has, despite documented exceedences of the groundwater standards

among the results of sampling conducted by the Respondent at the site, continued to fail to notify the Illinois EPA, in writing, of the change in groundwater quality at the site, and has failed to submit an assessment monitoring plan. Tr at 172 -175. Respondent Jersey Sanitation never complied with Attachment A Special Conditions 6(b) and 8 of its permit. Respondent's failure to comply with special conditions of its permit is a violation of violated Section 21(d)(1) and (2) of the Act, 415 ILCS 5/21(d)(1), (2). As stated in this brief previously, the first exceedences of the Class II groundwater standards were detected in the results of sampling conducted at the downgradient wells at Jersey Sanitation Corporation landfill on November 26, 1991. As of April 30, 2004, a total of 4,535 days will have lapsed since the initial violation of groundwater standards at the landfill. In that Permit No. 1992-350-SP was issued on February 8, 1993, February 9, 1993 is considered the first day of violation of the Attachment A Special Conditions 6(b) and 8. In that the next supplemental permit, Permit No. 1999-209-SP was issued on October 5, 1999, the total number days that Respondent continued to violate these special conditions is 2,428.

At the time of the November 19,1998 inspection, the Illinois EPA inspector documented that Respondent had failed to comply with Attachment A, Special Condition 16. Parties Exhibit 40, page 6 of the checklist. The Respondent had not provided confirmation that the stick-up elevations have been re-surveyed since their initial installation. The special condition requires that a confirmation be submitted to the Illinois EPA every two years.

By failing to comply with Permit No. 1992-350-SP Attachment A Special Condition 16, Respondent violated Section 21(d)(1) and (2) of the Act, 415 ILCS 5/21(d)(1), (2). In that Permit No. 1992-350-SP was issued on February 3, 1993, February 4, 1993 is considered the first day of violation of the Attachment A Special Conditions 16. As of November 19, 1998, a total of 2,113 days lapsed since the initial violation of Special Condition 16.

Included in the list of apparent violations that is contained within Ms. Nelson's October

24, 1994 report regarding the Illinois EPA's May 1994 sampling event (Parties Exhibit 34, page 33), is documentation of Respondent's failure to comply with Permit No. 1992-350-SP Attachment A Special Condition 21:

> Several required parameters were not analyzed for during the first quarterly sampling even following the issuance of the supplemental permit 1992-350-SP, dated February 8, 1993. The parameters that were not analyzed for (in any of the wells) included: cyanide, cadmium, iron, lead, manganese, mercury, ammonia, TOC and TOX.
>
> Also a detection limit of 50 ug/L was used for two consecutive quarters after the 620 groundwater standards were in effect and the issuance of the supplemental permit . The detection limit for 50 ug/L was too high because the Class I standard was 7.5 ug/L.

As documented in the October 24, 1994 report, Respondent failed to comply with Attachment A Special Condition 21 and thereby violated Section 21(d)(1) and (2) of the Act, 415 ILCS 5/21(d)(1), (2).

As documented in Parties Exhibit 34, the first annual assessment that was to be submitted in response to this condition was due on July 15, 1994. At the time that Ms. Nelson issued her report on the Illinois EPA's May 1994 sampling event at the landfill, the annual assessment had not been received. Ms. Nelson's report was issued in October 1994. Parties Exhibit 34, page 33.

Included among the list of violations documented at the time of the November 19, 1998 inspection, is a violation noted on page 6 of Parties Exhibit 40, which reads as follows: "Attachment A, Special Condition 22. The Respondent has failed to provide to the Agency an assessment report of the monitoring program to include an elevation of the groundwater flow direction and the hydraulic gradients of the facility."

As documented in Charlie King's report regarding his May 17, 2002 inspection of the Jersey Sanitation Corporation Landfill, Respondent had never complied with Item 22 of Attachment A of Permit No. 1992-350-SP as of the date of the inspection. Mr. King testified

that Respondent Jersey has since May 17, 2002 not submitted, nor has ever submitted, an annual assessment in compliance with item 22 of Attachment A of Permit No. 1992-350-SP. Tr at 172 -175. Respondent has failed to comply with Attachment A Special Condition 22, and thereby violated Section 21(d)(1) and (2) of the Act, 415 ILCS 5/21(d)(1), (2). In that Permit No. 1992-350-SP was issued on February 8, 1993, February 9, 1993 is considered the first day of violation of the Attachment A Special Condition 22. In that the next supplemental permit, Permit No. 1999-209-SP was issued on October 5, 1999, the total number of days that Respondent continued to violate this condition is 2,428.

N. The Respondent's violation of Sections 21(d) and Section 22.17, 415 ILCS 5/21(d) and 22.17, and 35 Ill. Adm. Code 807.524(a) with respect to Supplemental Permit No. 1999-209-SP.

Section 22.17 of the Act, 415 ILCS 5/22.17, provides, in pertinent part:

> Landfill post-closure care
>
> a. The owner and operator of a sanitary landfill site that is not a site subject to subsection (a.5) or (a.10) of this Section shall monitor gas, water and settling at the completed site for a period of 15 years after the site is completed or closed, or such longer period as may be required by Board or federal regulation.
>
> * * *
>
> b. The owner and operator of a sanitary landfill that is not a facility subject to subsection (a.5) or (a.10) of this Section shall take whatever remedial action is necessary to abate any gas, water or settling problems which appear during such period of time specified in subsection (a).

Section 807.524(a) of the Board's Waste Disposal Regulations, 35 Ill. Adm. Code 807.524(a), provides, in pertinent part.

> Implementation and Completion of Post-Closure Care Plan
>
> a) The operator of a waste disposal site shall implement the post-closure care plan commencing with receipt of a certification of closure pursuant to Section 807.508.

Supplemental Permit No. 1999-209-SP (Parties Exhibit 42), Paragraph C.5 provides as follows:

C. MONITORING

* * *

5. During the post-closure care period, corrective action shall be taken if problems, including but not limited to the following, occur:

Ponding
Cracks in final cover greater than one inch wide
Gas problems
Odor problems
Dead or stressed vegetation
Vegetation with taproots growing in areas not so designed
Vector problems
Leachate pop-outs or seeps

Paragraph 1(c) of the Respondent's Post-Closure Care Plan states that areas of standing water found within the fill boundary will be graded and/or filled. Parties Exhibit 42, and Parties Exhibit 41, Attachment 5, page 2.

As documented in Parties Exhibit 43, Charlie King's report regarding his June 6, 2000 inspection of the Jersey Sanitation Corporation Landfill, an approximate 45 foot by 30 foot area of ponded water in marsh-like conditions existed on top of the Respondent's landfill, near the south center of the landfill mound. Parties Exhibit 43, page 4 of the narrative and page 6 of the checklist. Further, on June 6, 2000, the Illinois EPA inspector documented experiencing a gas odor by the west gas probe. Parties Exhibit 43, page 3 of the narrative and page 6 of the checklist.

At the time of the June 6, 2000 inspection, the Illinois EPA inspector observed numerous cracks in the final cover greater than one inch wide. Parties Exhibit 43. On the date of the June 6, 2000 inspection, RSC, Inc. Landfill personnel were repairing a large crevice that was over 25 feet by 10 feet and over a foot deep in places, and two other large rills were

observed as well. Parties Exhibit 43, page 3 of the narrative. As stated above, on June 6, 2000, gas and odor problems were detected around the west gas probe. Parties Exhibit 43, page 3 of the narrative. A hissing noise was emitting from a flanged bolt-plate, and a strong odor of gas was detectable. Further, dead and stressed vegetation was observed on the north sidewall slope, one area was over 8 feet in diameter. Parties Exhibit 43, page 3 of the narrative. Further, a leachate pop-out or seep measuring approximately 10 feet by 5 inches was observed approximately 40 feet southwest of unmarked groundwater monitoring well G106. Parties Exhibit 43, page 4 of the narrative, and photos 4, 6, 7, 8, 10, 11, 12, 16.

At the time of the inspection, the operator the landfill, Mike Cassons, indicated to Mr. King that he was doing his best to have both landfills in the best condition possible. Parties Exhibit 43, page 3 of the narrative. By both landfills, he was referring to the RSC, Inc. Landfill and Jersey Sanitation Corporation Landfill. At the time of the inspection, the extent and quantity of infractions would indicate that conditions had been allowed to go uncorrected for a period time. Otherwise the crevices and rills would not be as numerous or deep. The ponded water would have been corrected, as would have the leachate pop-out.

Mr. King's observations of ponded and standing water, gas releases and gas odors, crevices and rills, dead and stressed vegetation and a leachate pop-out at the time of the June 6, 2000 is documented evidence of Respondent's failure to comply with Permit No. 1999-209–SP Special Condition C.5 and paragraph 1(c) of its Post-Closure Care Plan, and thereby Respondent's violation of Section 21(d)(1) and (2) and Section 22.17 of the Act, 415 ILCS 5/21(d)(1),(2) and 22.17, and 35 Ill. Adm. Code 807.524(a).

COUNT V

O. The Respondent's failure to provide adequate cover on refuse

Section 21(o)(5) of the Act, 415 ILCS 5/21(o)(5), provides in pertinent part, as follows:

No person shall:

* * *

o. Conduct a sanitary landfill operation which is required to have a permit under subsection (d) of this Section, in a manner which results in any of the following conditions:

* * *

5. uncovered refuse remaining from any previous operating day or at the conclusion of any operating day, unless authorized by permit.

Section 807.305 of the Board's Solid Waste Disposal Regulations, 35 Ill. Adm. Code 807.305, provides, in pertinent part, as follows:

Cover

Unless otherwise specifically provided by permit, the following cover requirements shall be follows:

a. Daily Cover - a compacted layer of at least 6 inches of suitable material shall be placed on all exposed refuse at the end of each day of operation.

In all the inspection reports through 1994, Parties Exhibits 7 (August 30, 1990), 10 (January 23, 1991), 18 (May 21,1991), 21 (November 19, 1991), 25 (February 25, 1992), and 27 (September 21,1992), inspectors documented uncovered refuse. The photos contained in many of these reports tell the story.

In the report for the August 30, 1990 inspection, Illinois EPA inspector Rich Johnson documented, on page 5 of the narrative, that it appeared that there were several days' refuse receipts left uncovered. The current operators said they were trying to get cover and apply it to the area. Several piles of soil were noted in the vicinity of the exposed refuse (see photos 9, 23 and 26). Descriptions of the inspector's observations of uncovered waste are documented on page 4 of the report. Photos depicting the uncovered waste include photos 1, 2, 3, 9, 10 and 22.

On March 21, 1991, the Illinois EPA filed an administrative citation against Jersey Sanitation based on the Illinois EPA's inspectors observations at the time of the January 23, 1991 inspection. An allegation of uncovered refuse was included among the violations cited in the administrative citation. The report for that inspection is included in the record of this proceeding as Parties Exhibit 10. Respondent Jersey Sanitation Corporation did not file a Petition for Review in response to the administrative citation, and paid the penalty demanded in the citation on April 29, 1991. Parties Exhibits 11, 12, 13, 14, 16 and 17. Given that violation of uncovered refuse at the time of the January 23, 1991 inspection was satisfied by payment of the civil penalty assessed pursuant to the previous administrative citation, Complainant is not seeking relief for that allegation herein. However, evidence of the violation is being brought forth as support for the Complainant's allegation that subsequent violations of daily cover provisions were ongoing and repeat violations.

At the time of the January 23, 1991 inspection, Mr. Johnson made the following observations (Parties Exhibit 10, page 1 and 2 of the narrative):

> On walking toward the active area where refuse was unloaded, a large exposed face of refuse was observed (see photos 2, 3, 4, 5, 6, 7, 10, 11, 13, 14 and 26). This face of refuse was located in the western portion of the ravine being filled. The exposed face of refuse went from the south edge of the ravine northward until it was close to the north bank of the ravine where it continued east for another 100 to 150 feet.
>
> Mr. Antrobus [the operator] said he had covered the two previous operating day's refuse with soil. However, he could not say how long the uncovered refuse on the fill face had been left exposed. He indicated that stockpiled cover material had been used to cover the previous 2 day's refuse and some of the older exposed refuse. There was only one small pile of soil left near the active area to use for cover. According to Mr. Antrobus, landfill employees were obtaining soil from the north bank of the ravine. The digging along the north bank was discontinued because the activity was getting close to the fence installed along the north property line. Cover material had previously been obtained from an area along the south side of the landfill (see site sketch and photo 20). It was indicated by Mr. Antrobus that the scraper was not currently being used in the south area because the frost in the soil would make it difficult for the scraper to excavate the soil.
>
> Mr. Cronin [a shareholder in the Jersey Sanitation Corporation] was asked whether he knew how long the refuse on the fill face had been left uncovered. He was unable to

give a time or date but did say the landfill had had trouble applying cover ever since the new officers of Jersey Sanitation Corporation took control of the landfill.

Before applying cover to the exposed face of refuse, the refuse will have to be regraded and compacted, according to Mr. Antrobus. He indicated the current face or refuse was too steep and the waste not compacted well enough to effectively run the equipment and apply cover.

The new officers took control in November 1989. The date of the inspection was January 23, 1991; well over a year since the landfill had changed hands.

Documentation of observations of uncovered refuse at the time of the May 21, 1991 inspection appears on page 4 of the narrative in the report, Parties Exhibit 18. Again, the photos contained within the report tell the story. Parties Exhibit 18, photos 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 18, 19, 21, 23, 24, 25, 26, 27, 28, 35, 37.

Documentation of observations of uncovered refuse at the time of the November 19, 1991 inspection appear on pages 4 and 5 of the narrative in the report, Parties Exhibit 21. The following photos of the inspector's observations are contained in the report: photos 1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 26.

Documentation of observations of uncovered refuse at the time of the February 25, 1992 inspection appear on pages 5, 6 and 7 of the narrative in the report, Parties Exhibit 25. The following photos of the inspector's observations are contained in the report: photos 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28.

The Illinois EPA conducted an inspection of the landfill to confirm that it had ceased accepting waste on September 21, 1992. At the time of the inspection, the inspector documented the following observations (Parties Exhibit 27, page 1 of the narrative).

Although no extensive uncovered refuse was observed as at past inspections, cover material over the majority of the fill was inadequate with significant amounts of refuse sticking through the dirt

Photos #2-3, roll 120 depict the west end fo the fill. Litter and uncovered refuse can be seen in these photos.

A tarp was noticed folded on top of the fill. According to Mr. Cassens, this was being used as alternate daily cover (ADC) during rainy conditions. A second unused tarp was located by the office. Jersey Sanitation applied for a permit to use ADC, however, this permit has not been issued, and the decision date was waived until October 15, 1992.

The landfill ceased accepting waste on September 17, 1992. At the time of the August 30, 1990, May 21, 1991, November 19, 1991, and February 25, 1992 inspections, the Respondent failed to place a compacted layer of six inches of cover material on exposed refuse at the end of each operating day and thereby violated Section 21(o)(5) of the Act, 415 ILCS 5/21(o)(5) and 35 Ill. Adm. Code 807.305.

COUNT VI

P. Respondent's failure to meet its financial assurance requirements.

1. Respondent's failure to post adequate financial assurance.

Section 21.1(a) of the Act, 415 ILCS 5/21.1(a), provides as follows:

> a. No person other than the State of Illinois, its agencies and institutions, or a unit of local government shall conduct any waste disposal operation on or after March 1, 1985, which requires a permit under subsection (d) of Section 21 of this Act, unless such person has posted with the Agency a performance bond or other security for the purpose of insuring closure of the site and post-closure care in accordance with this Act and regulations adopted thereunder.

Section 807.601 of the Board's Solid Waste Disposal Regulations, 35 Ill. Adm. Code 807.601, provides as follows:

> Requirement to Obtain Financial Assurance
>
> No person shall conduct a waste disposal operation or indefinite storage operation which requires a permit under Section 21(d) of the Act unless such person has provided financial assurance in accordance with this Subpart.

Section 807.603 of the Board's Solid Waste Disposal Regulations, 35 Ill. Adm. Code 807.603, provides, in pertinent part, as follows:

Upgrading Financial Assurance

* * *

b) The operator must increase the total amount of financial assurance so as to equal the current cost estimate within 90 days after any of the following:

1) An increase in the current cost estimate;

Supplemental Permit No. 1992-350-SP, issued by the Illinois EPA on February 8, 1993, contained the following Special Conditions (Parties Exhibit 30):

B.3 Financial assurance shall be maintained by the operator in accordance with 35 Ill. Adm. Code, Subtitle G, Part 807, Subpart F in an amount equal to the current cost estimates for closure and post-closure care. The current cost estimate is $97,690.00;

B.4 To date, the site operator has provided financial assurance totaling $39,886 as of March 4, 1992 through the establishment of trust agreement trust fund number J9003 at the State Bank of Jerseyville. The total closure and post-closure care cost estimate is $97,690.00, therefore, within 90 days of the date of this permit, the site operator shall provide the Agency with documentation of updated financial assurance pursuant to 35 Ill. Adm. Code, Subtitle G, Section 807, Subpart F.

At hearing, Complainant called Blake Harris, an accountant with the Illinois EPA's Waste Reduction and Compliance Section, Bureau of Land, to testify regarding Jersey Sanitation's compliance with financial assurance requirements. Ms. Harris testified that he had served in his current position since February of 1999. His primary responsibilities included review of financial assurance records and facilities' compliance with financial assurance regulations. Tr. at 56-57. An overview of his education and responsibilities in his current position is included in the record of this proceeding as Complainant's Exhibit 3.

Mr. Harris testified that Respondent Jersey Sanitation Corporation failed to meet the requirements of Permit No. 1992-350-SP, Special Condition B.4, by failing to provide updated financial assurance documentation by May 8, 1993. Tr. at 60-61.

He testified that nothing was received from Jersey Sanitation documenting the total amount it had in trust as financial assurance for the landfill until the Illinois EPA received the annual evaluation of the trust fund from the Jerseyville State Bank, on October 20, 1993. Mr. Harris testified that the amount in trust reported by the bank on that date was $50,382.06. Tr. at 62. The October 20, 1993 evaluation was entered in the record of this proceeding as Complainant's Exhibit 4. Mr. Harris testified that, pursuant to the permit requirements in effect at the time, Respondent Jersey Sanitation was supposed to have $96,690 posted for financial assurance for the Jersey Sanitation Corporation Landfill. Mr. Harris testified that the bank's evaluation was submitted to the Illinois EPA pursuant to the bank's trust agreement, and it would be submitted to the Illinois EPA as a statement upon which they could rely as an accurate declaration of the amount available in trust. Tr. at 61-62.

Mr. Harris next identified and testified to the amounts reported on the bank's evaluation statements for the years 1994 through 1998. Tr. at 63-64, Complainant's Exhibit 5. The amounts reported are as follows (Tr. at 64, Complainant's Exhibit 5):

For 1994, $52,336.95
For 1995, $54,895.74
For 1996, $56,853.51
For 1997, $59,300.63
For 1998, $61,904.28

Mr. Harris testified that, as these numbers show, through the date of February 8, 1993 to November 5, 1998, Respondent Jersey Sanitation had failed to secure the amount of financial assurance required by its permit. Tr. at 64

When Permit No. 1999-209-SP was issued, within that permit, the Illinois EPA approved submitted cost estimates in the amount of $62,775. Parties Exhibit 42, Tr. at 68. Mr. Harris testified that, as of November 2, 1999, the bank's evaluation of Respondent Jersey Sanitation's Trust fund indicated an amount of $64,186,50, relying on Complainant's Exhibit 6. Mr. Harris

testified that at the time Permit No. 1999-209-SP was issued, Respondent had adequate finance assurance and was in compliance with financial assurance requirements. Tr. at 69.

Respondent failed to comply with Special Condition B.3 and thereby violated Section 21(d) and Section 21.1(a) of the Act, 415 ILCS 5/21(d), 21.1(a), and 807.603. The first day violation was May 8, 1993. The violation was ongoing from May 9, 1993 until October 20, 1993, which totals 164 days.

Respondent failed to comply with Special Condition B.4 and thereby violated Section 21(d) and Section 21.1(a) of the Act, 415 ILCS 5/21(d), 21.1(a), and 35 Ill. Adm. Code 807, 601 and 807.603. The first day of violation was February 9, 1993. The violations were ongoing from February 10, 1993 until at least November 5, 1998, which totals 2,093 days.

2. Respondent's failure to timely file biennial revisions of cost estimates

Section 807.623 of the Board's Solid Waste Disposal Regulations, 35 Ill. Adm. Code 807.623, provides as follows:

> Biennial Revision of Cost Estimates
>
> a) The operator must revise the current cost estimate at least once every two years. The revised current cost estimate must be filed on or before the second anniversary of the filing or last revision of the current cost estimate.
>
> b) The operator must review the closure and post-closure care plans prior to filing a revised cost estimate in order to determine whether they are consistent with current operations and regulations. The operator must either certify that the plans are consistent, or must file an application reflecting new plans.
>
> c) The operator must prepare new closure and post-closure cost estimates reflecting current prices for the items included in the estimates. The operator must file revised estimates even if the operator determines that there are no changes in the prices.

Supplemental Permit No. 1992-350-SP, issued by the Illinois EPA on February 8, 1993,

contained the following Special Conditions (Parties Exhibit 30):

> B.5 The operator shall file revised cost estimates for closure and post-closure care at least every two years in accordance with 35 Ill. Adm. Code, Subtitle G, Part 807, Subpart F. The next revised cost estimates are due on or before March 15, 1993.

Mr. Harris testified that Respondent Jersey Sanitation failed to comply with Special Condition B.5 of Permit No. 1992-350-SP, from the date that the revised cost estimates were originally due, May 15, 1993, until the time at which Permit No. 1999-209-SP was issued on October 5, 1999. Tr. at 64 - 68. He indicated that the requirement is not met until the submitted revised cost estimate is approved and included in a supplemental permit. He testified that the records in the permit file, referencing Complainant's Exhibit 2, indicate that after the Permit No. 1992-350-SP was issued, and subsequent to March 15, 1993, a supplemental permit was not issued to Respondent Jersey Sanitation Corporation until October 5, 1999. Therefore, Respondent was out of compliance with this permit special condition from March 15, 1993 until October 5, 1999.

Respondent failed to comply with Special Condition B.5, Permit 1992-350-SP, until October 5, 1999, and thereby violated Section 21(d) and Section 21.1(a) of the Act, 415 ILCS 5/21(d), 21.1(a), and 35 Ill. Adm. Code 807, 302 and 807.623. The first day of violation was March 15, 1993. The violations continued from March 16, 1993 until October 5, 1999, a total of 2,393 days.

Mr. Harris testified that Respondent Jersey Sanitation currently is not in compliance with the Board's regulations that require submission of revised cost estimates at least every two years. Tr. at 69. Mr. Harris testified that Permit No. 1999-209-SP requires that a revised cost estimated be submitted on March 15, 2001. Mr. Harris testified that Respondent Jersey Sanitation Corporation had not submitted a revised cost estimate by March 15, 2001, and as of

the date of his testimony, has not submitted a revised cost estimate.

Mr. Harris testified that since a cost estimate revision had not been filed as required by the permit and the financial assurance regulations, he could not make a determination as to whether Respondent currently is in compliance with financial assurance requirements for the landfill and whether the appropriate amount of financial assurance is posted. Tr. at 70.

3. Respondent realized an inappropriate advantage over time due to its failure to comply with its permit's and the Board's financial assurance requirements.

Mr. Harris testified that he calculated the economic benefit that Respondent Jersey Sanitation realized from not fully meeting its financial assurance requirements from 1993 until 1999. The full explanation of his calculation appears in the record of this proceeding at Tr. 71-79.

Mr. Harris testified that, using conservative interest rates, Respondent realized a benefit of $25,233.53 by not meeting financial assurance requirements for the subject landfill. A table showing Mr. Harris benefit calculations was entered at hearing as Complainant's Exhibit 7. Complainant's Exhibits 8, 9, 10 and 11 were entered in support of the interest rate Mr. Harris chose to use for this calculation.

As Mr. Harris pointed out in the course of his testimony, the point of the benefit calculation is to show the advantage a landfill facility that does not comply with the financial assurance requirement gains from its non-compliance, in comparison to a facility that does comply. The calculation reveals the inappropriate advantage the facility has gained by not complying with the Board's regulations. Tr. at 96.

COUNT VII

Q. Respondent's failure to timely complete closure and comply with closure requirements

Section 21 of the Act, 415 ILCS 5/21, provides, in pertinent part, as follows:

> No person shall:
>
> * * *
>
> o. Conduct a sanitary landfill operation which is required to have a permit under Section (d) of this Section, in a manner which results in any of the following conditions:
>
> * * *
>
> 6. failure to provide final cover within time limits established by Board regulations;

Section 22.17 of the Act, 415 ILCS 5/22.17 (1994), provides as follows:

> Landfill Post-Closure Care
>
> * * *
>
> a.10 The owner and operator of a MSWLF unit that accepts household waste on or after October 9, 1991, but stops receiving waste before October 9, 1993, and installs final cover more than 6 months after the receipt of the final volume of waste shall conduct post-closure care at the site for a period of 30 years after the site is completed or closed, or such other period as may be approved by the Agency pursuant to Board or federal rules.

Section 807.305(c) of the Board's Solid Waste Disposal Regulations, 35 Il. Adm. Code 807.305(c), provides as follows:

> Closure Plan
>
> Unless otherwise specifically provided by permit, the following cover requirements shall be followed:
>
> * * *
>
> c) Final Cover - a compacted layer of not less than two feet of suitable material shall be placed over the entire surface of each

portion of the final lift not later than 60 days following the placement of refuse in the final lift, unless a different schedule has been authorized in the Operating Permit.

Section 807.318 of the Board's Solid Waste Disposal Regulations, 35 Ill. Adm. Code 807.318 provides, in pertinent part, as follows:

Completion or Closure Requirements

* * *

b) The owner or operator shall take whatever remedial action is necessary to abate any gas, water or settling problems which appear during the three year period.

c) The owner or operator shall, upon completion or closure, file a detailed description of the site, including a plat, which the appropriate county land recording authority for the county in which the site is located.

Section 807.502 of the Board's Solid Waste Disposal Regulations, 35 Ill. Adm. Code 807.502 provides as follows:

Closure Performance Standard

In addition to the specific requirements of this Part, an operator of a waste management site shall close the site in a manner which:

a) Minimizes the need for further maintenance; and

b) Controls, minimizes or eliminates post-closure release to waste, waste constituents, leachate, contaminated rainfall, or waste decomposition products to the groundwater or surface waters or to the atmosphere to the extent necessary to prevent threats to human health or the environment.

Respondent Jersey Sanitation Corporation ceased accepting waste at the landfill on September 17, 1992. Parties Exhibit 27, first page of the narrative.

The Illinois EPA conducted an inspection of the landfill to confirm that it had ceased accepting waste, on September 21, 1992 inspection. At the time of the inspection, the inspector documented the following observations (Parties Exhibit 27, page 1 of the narrative).

Although no extensive uncovered refuse was observed as at past inspections, cover

material over the majority of the fill was inadequate with significant amounts of refuse sticking through the dirt

Photos #2-3, roll 120 depict the west end fo the fill. Litter and uncovered refuse can be seen in these photos.

A tarp was noticed folded on top of the fill. According to Mr. Cassens, this was being used as alternate daily cover (ADC) during rainy conditions. A second unused tarp was located by the office. Jersey Sanitation applied for a permit to use ADC, however, this permit has not been issued, and the decision date was waived until October 15, 1992.

As documented in his report regarding the January 21/February 17,1994 inspection of the Jersey Sanitation Corporation Landfill, Charlie King observed that Respondent failed to establish and maintain final cover at the time of the inspection. Included in the inspection report is Attachment A of the Respondent's Closure Plan, which appeared in the November 1992 supplemental permit application submitted by Andrews Engineering for Jersey Sanitation Corporation, and which constitutes a part of Permit No. 1992-350-SP. The schedule contained in the plans as Attachment A indicates that the final protective layer was to be in place within ten weeks of initiation of closure. Jersey Sanitation Corporation Landfill ceased accepting waste on September 17, 1992. The final cover should have been in place by November 30, 1992. Parties Exhibit 30, page 11 of the narrative.

Special Condition B.6 includes the requirement that: "Compaction test results, moisture-density curves (ASTM D698) and related soil data must be submitted to the Agency with the plan sheets and closure affidavits required by 35 Ill. Adm. Code Section 807.508." Mr. King documented, in his report regarding his November 19, 1998 inspection, that Respondent had not submitted the requisite data and closure affidavits to the Illinois EPA at the time of the inspection.

Respondent failed to comply with Special Condition B.6 of its permit by failing to secure final cover on the landfill by November 30, 1992, and by failing to submit the information required by 35 Ill. Adm. Code 807.508 until the time of the November 19, 1998 inspection.

Observations of Respondent's failure to establish and maintain final cover, and failure to correct and prevent leachate seeps, flows and ponding, emissions of gas and gas odors, and accumulations of ponded or standing water at the landfill after September 17, 1992, are included in Section I and J concerning Respondent's failure to control leachate and Section K concerning Respondent's causing or allowing refuse to exist in flowing water, and will not be repeated here.

At the time of the February 17, 1994 inspection, Illinois EPA inspector Charlie King observed waste protruding from the landfill cover on the south side of the filled area mound (Parties Exhibit 31, page 7 of the narrative and photo #11, roll 124), and hundreds of erosion channels and crevices. Parties Exhibit 31, including photos attached therein.

In Parties Exhibit 31, the Illinois EPA report regarding its January 21/February 17, 1994 inspection, on page 3 of the check-off list (item 32), and on page 12 of the narrative, again referencing item 32, Mr. King documented observations of noticeable gaseous odors emanating from the landfill in two locations.

A site sketch included within the October 24, 1994 report of the May 17, 18 and 19, 1994 Illinois EPA sampling event at the landfill shows the location of numerous leachate seeps at the time of the sampling event. Parties Exhibit 34.

As documented in Parties Exhibit 40, at the time of the November 19, 1998 inspection it was observed that two gas vents had been installed at the landfill. Parties Exhibit 40, page 3 and 4 of the narrative. On page 5 of the narrative contained in Parties Exhibit 40, it is documented that the site description contained within a February 1997 application for supplemental permit and certification of closure included gas control vents and gas flares. The site sketch contained within Parties Exhibit 40 includes locations of gas vents and flares. Photos 7 and 8 of the report depicts the gas flares. Both the flares were functioning at the time of the inspection, indicating that they were flaring off gas emitting from the landfill, and the

"Solar Shock" device was also operating at the time of the inspection. Parties Exhibit 40, page 4 of the narrative.

As documented in Parties Exhibit 43, Charlie King's report regarding his June 6, 2000 inspection of the Jersey Sanitation Corporation Landfill, an approximate 45 foot by 30 foot area of ponded water in marsh-like conditions existed on top of the Respondent's landfill, near the south center of the landfill mound. Parties Exhibit 43, page 4 of the narrative and page 6 of the checklist. Further, on June 6, 2000, the Illinois EPA inspector documented experiencing a gas odor by the west gas probe. Parties Exhibit 43, page 3 of the narrative and page 6 of the checklist.

At the time of the June 6, 2000 inspection, the Illinois EPA inspector observed numerous cracks in the final cover greater than one inch wide. Parties Exhibit 43. On the date of the June 6, 2000 inspection, RSC, Inc. Landfill personnel were repairing a large crevice that was over 25 feet by 10 feet and over a foot deep in places, and two other large rills were observed as well. Parties Exhibit 43, page 3 of the narrative. As stated above, on June 6, 2000, gas and odor problems were detected around the west gas probe. Parties Exhibit 43, page 3 of the narrative. A hissing noise was emitting from a flanged bolt-plate, and a strong odor of gas was detectable. Further, dead and stressed vegetation was observed on the north sidewall slope, one area was over 8 feet in diameter. Parties Exhibit 43, page 3 of the narrative. Further, a leachate pop-out or seep measuring approximately 10 feet by 5 inches was observed approximately 40 feet southwest of unmarked groundwater monitoring well G106. Parties Exhibit 43, page 4 of the narrative, and photos 4, 6, 7, 8, 10, 11, 12, 16.

It is documented in the report for the January 21/February 17, 1994 inspection that the time of the inspection, Respondent Jersey Sanitation had not filed a plat of the landfill with the Jersey County Record of Deeds. Parties Exhibit 31, page 12 of the narrative. Parties Exhibit 41 includes, as Attachment 3, documentation that a plat of the landfill was filed with the Jersey

County Recorder of Deeds, in compliance with closure requirements, on January 31, 1997. Respondent failed to comply with closure requirements requiring it to file a plat with the county recorder in a timely manner, and thereby violated 35 Ill. Adm. Code 807.318(c). The first documented violation of this provision occurred at the time of the February 17, 1994 inspection. The violation was ongoing until January 31, 1997, or a total of 1.078 days.

Respondent's Permit No. 1999-209-SP, issued October 5, 1999, acknowledged receipt of certification of completion of closure for the landfill.

Respondent failed to establish and maintain final cover at the landfill 60 days after ceasing to accept waste, and in fact did not establish final cover until October 5, 1999, and thereby violated Section 21(d)(1) and (2) and 21(o)(6) of the Act, 415 ILCS 2/21(d)(1), (2), and 21(o)(6), and 35 Ill. Adm. Code 807.305(c). The first violation of these provisions occurred on December 1, 1992. These violations continued until October 5, 1999, a total of 2,497 days.

Respondent failed to take remedial action to abate gas after it ceased accepting waste and as it sought to close the landfill, and thereby violated 35 Ill. Adm. Code 807.381(b). Detections of gas odor and gas releases were documented by inspectors at the time of the November 18, 1998 and June 6, 2000 inspection.

Respondent failed to close the landfill in a manner that adequately controlled post-closure releases to groundwater and surface waters and to the atmosphere and thereby violated 35 Ill. Adm. Code 807.502. The first violation of this provision occurred on September 18, 1992. The violations continued until October 5, 1999, a total of 2,557 days.

COUNT VIII

R. Respondent's violation of open burning provisions

Section 9 of the Act, 415 ILCS 5/9, provides, in pertinent part, as follows:

No person shall:

a. Cause or threaten or allow the discharge or emission of any *contaminant into the environment in any state so as to cause or* tend to cause air pollution in Illinois, either alone or in combination with contaminants from other sources, or so as to violate regulations or standards adopted by the Board under this Act;

* * *

c. Cause or allow the open burning of refuse, conduct any salvage operation by open burning, or cause or allow the burning of any refuse in any chamber not specifically designed for the purpose and approved by the Agency pursuant to regulations adopted by *the Board under this Act;*

Section 21 of the Act, 415 ILCS 5/21 (1994), provides, in pertinent part, as follows:

No person shall:

* * *

o. Conduct a sanitary landfill operation which is required to have a permit under subsection (d) of this Section, in a manner which results in any of the following conditions:

* * *

4. *open burning of refuse in violation of Section 9 of this Act;*

Section 3.115 of the Act, 415 ILCS 5/3.115, defines "air pollution" as follows:

'AIR POLLUTION' is the presence in the atmosphere of one or more contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant, or animal life, to health, or to property, or to unreasonably interfere with the enjoyment of life or property.

Section 3.165 of the Act, 415 ILCS 5/3.165, defines "contaminant" as follows:

'CONTAMINANT' is any sold, liquid, or gaseous matter, any odor, or any form of entry, from whatever source.

Section 3.300 of the Act, 415 ILCS 5/3.3000, defines "open burning" as follows:

'OPEN BURNING' is the combustion of any matter in the open or in an open dump.

Section 3.535 of the Act, 415 ILCS 5/3.535, defines "waste" as follows:

'WASTE' means any garbage, sludge from a waste treatment plant,

> water supply treatment plant, or air pollution control facility or other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the Clean Water Act or source, special nuclear, or byproduct materials as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 9210 or any solid or dissolved material from any facility subject to the Federal Surface Mining Control and Reclamation Act of 1977 (P.L. 96-87) or the rules and regulations thereunder or any law or rule or regulation adopted by the State of Illinois pursuant thereto.

Section 237.101 of the Board's Air Pollution Regulations, 35 Ill. Adm. Code 237.101, defines "open burning" as follows:

> 'OPEN BURNING:' the combustion of any matter in such a way that the products of the combustion are emitted to the open air without originating in or passing through equipment for which a permit could be issued under Section 9(b) of the Act (Environmental Protection Act, Ill. Rev. Stat. 1981, Ch. 111 ½, par. 1009(b)).

Section 237.102 of the Board's Water Pollution Regulations, 35 Ill. Adm. Code 237.102, provides, in pertinent part, as follows:

> a) No person shall cause or allow open burning, except as provided in this Part.

In Parties Exhibit 7, page 9 of the narrative, Illinois EPA inspector Rich Johnson documented his observation of smoldering wood debris south of the landfill at the time of the inspection. Parties Exhibit 7, photos 11 and 12. The waste in the burn pile was composed of boards and landscape waste. The site operator could not provide Mr. Johnson with any details as to how the waste caught on fire. The operator indicated the waste had been burning for several days. The operator had attempted to put soil on the waste to extinguish the fire. Smoke was still being emitted.

Respondent caused or allowed open burning to occur at the landfill at the time of the

August 30, 1990 inspection, and thereby caused, threatened or allowed the discharge of contaminates into the environment, in violation of Section 9(a) and Section 21(o)(4) of the A ct, 415 ILCS 5/9(a) and 21(o)(4). Respondents caused or allowed the open burning of waste not exempt from regulation, in violation of Section 9(c) of the Act, 415 ILCS 5/9(c), and 35 Ill. Adm. Code 237.102.

III. RELIEF SOUGHT

A. Factors the Board must consider in making its determination, Section 33(h) of the Act, 415 ILCS 5/33(h)

Section 33(c) of the Act, 415 ILCS 5/33(c), provides:

c. In making its orders and determinations, the Board shall take into consideration all the facts and circumstances bearing upon the reasonableness of the emissions, discharges, or deposits involved including, but not limited to:

i. the character and degree of injury to, or interference with the protection of the health, general welfare and physical property of the people;

ii. the social and economic value of the pollution source;

iii. the suitability or unsuitability of the pollution source to the area in which it is located, including the question of priority of location in the area involved;

iv. the technical practicability and economic reasonableness of reducing or eliminating the emissions, discharges or deposits resulting from such pollution source; and

v. any subsequent compliance.

1. Respondent's actions and omissions have resulted in potential for pollution of waters of the State, both groundwater and surface waters. Respondent's failure to properly operate the landfill and timely certify closure have aggravated injurious circumstances over time.

Respondent's failure to evaluate its groundwater monitoring plan, conduct a groundwater assessment, and perform corrective actions to address exceedences of the

Board's Class II groundwater quality standards at the landfill exists as an aggravating factor that very likely has and continues to result in additional potential for pollution of waters of the State, both groundwater and surface water, at the site, and, in turn, an interference with the protection of health, general welfare and physical property of the people, and also interference with the environment. Illinois EPA inspector Rich Johnson testified that during the time August 30, 1990 to February 25, 1992, conditions at the landfill posed a serious threat to surface water (Tr. at 139):

> During those five inspections, there was a serious threat to the surface water. And actually, you had two leachate flows going to the [Sandy Creek] during that period of time. You also had considerable uncovered refuse that provided, you know, an access to vectors, and you had the potential for allowing the contaminants to get into the ground and into the groundwater.

Respondent's failure over time, a total of at least 10 years from the date Respondent acquired ownership and control of the property until it was certified close, to properly operate and maintain the landfill, most likely caused additional potential injury to the health and welfare of the people and also exasperated interference with the environment. It is clear from the evidence, as predicted would be the case by the 1973 subsurface investigation report, Respondent's failure to install and maintain drainage, leachate and gas controls as well as Respondent's failure to cover refuse, resulted in a greatly increased potential for groundwater and surface water contamination.

The first factor under Section 33(h) is the character and degree of injury to, or interference with the protection of the health, general welfare and physical property of the people.

This factor should be weighed against Respondent.

2. **The Jersey Sanitation Landfill, at the time of its operation by Respondent, would only be of economic and social value to the surrounding community, to its employees, and to its customers, if it is operated in a fashion that does not violate Illinois environmental laws and regulations. Given ongoing violation of the Board's groundwater quality standards in the water underlying this landfill, the landfill, even after certification of closure, continues to generate external costs and to interfere with the environment.**

Respondent's operation of the Jersey Sanitation Landfill resulted in leachate flows into Sandy Creek, contamination of the groundwater, the existence of exposed uncovered refuse and releases of odorous gas. In that the landfill failed to correct these problems during the years in which it was operating, it transferred the cost of this environmental expense to the physical environment and the immediate surrounding community.

Respondent is now claiming, as a corporation, it has no cash reserves and no assets other than the trust fund and real estate of the landfill itself. If the Respondent is now claiming it cannot afford to conduct the evaluation of the monitoring plan, the groundwater assessment and any necessary corrective actions, the contamination from this landfill becomes an external expense that the neighborhood and people of the State of Illinois will be forced to bear, and an interference with the environment.

The second Section 33(h) factor is the social and economic value of the pollution source.

The landfill should be deemed to have no social or economic value, given the detriment it represents in the form of externalized costs.

3. **The suitability of the pollution source, Respondent's landfill, to the area in which it was located was the subject of a siting decision made many years ago, at a time when the citizens of Jersey and Calhoun Counties had an emergency need for landfill facilities due to flooding.**

The information provided within the 1973 subsurface investigation report certainly raises questions as to why this landfill was developed directly east of Sandy Creek in a ravine.

However, as pointed out in testimony provided by Andrew Rathsack, siting procedures and regulations for solid waste facilities to develop and operate prior to 1990 were not as stringent as they are today. Also, as stated among the documents that constitute Parties Exhibit 1, which include the initial applications for the development and operation of this landfill, it was developed in response to an emergency need for landfill facilities.

Nonetheless, the challenges this site presented were well documented as early as 1973. These challenges were known to Ms. Shourd, a woman who testified she is "all of the officers" of Respondent corporation. Tr. at 324. In a letter dated December 13, 1990, Ms. Shourd acknowledged "our landfill design is one that is difficult to manage at best. This is due to the large open areas and having to transport dirt."

One thing that is evident from the record, both the 1973 subsurface site investigation and testimony from witnesses at hearing, is that the land located directly south of the landfill was deemed to be suitable for development as a landfill, and in fact, an entity known as RSC, Inc., did develop a landfill on this adjoining property. It has been identified to exist 500 feet south of the Jersey Sanitation Landfill. As such, at least a portion of the 200 acres originally acquired by Jersey Sanitation Landfill Corporation from Ralph Johnson has proven a very suitable location for the development of the RSC, Inc. Landfill. The circumstantial evidence introduced in this matter indicates Jersey Sanitation Landfill Corporation appears to have interconnecting interests with RSC, Inc.

The third Section 33(h) factor is the suitability or unsuitability of the pollution source to the area in which it is located, including the question of priority of location in the area involved.

Based on the foregoing, this factor should not weigh into the Board's determination in this matter.

4. **Proper closure of a landfill, including the establishment of an appropriate groundwater monitoring plan, performance of a groundwater assessment, and development and implementation of a corrective action plan, as well as ongoing maintenance of the landfill so as to meet all post-closure requirements (including submission of biennial cost estimates), are technically practicable and economically reasonable for the Jersey Sanitation Landfill Corporation.**

At hearing, Mr. Rathsack testified that a groundwater assessment would cost $9,000. Tr. at 395. The amount represents an economically reasonable expense.

Mr. Rathsack testified that he generated this figure because he had been asked by his client Jersey Sanitation Landfill at the time that the 1999 application for a supplemental permit was drawn up to provide a comparison of the cost estimates. Tr. at 395. The client wanted to know the total amount of the cost estimate with and without the cost of the groundwater assessment. So obviously, the client was very interested in avoiding the cost of performing a groundwater assessment. Mr. Rathsack testified that the $9,000 was not included in the cost estimate submitted to the Illinois EPA. Hence, Mr. Harris' calculation of the inappropriate advantage realized by Jersey Sanitation due to costs avoided in this matter is relevant.

The amount of $9,000 is particularly reasonable compared to the amount of money that must have been spent by Respondent to finance a permit appeal for the subject landfill, and to pay for the instant proceeding including the participation of three of Andrews Engineering's principals. Funding for these efforts has been found by the Respondent, while there is a claim of no money available to fully fund the landfill's financial assurance trust account nor has the Respondent funded compliance and corrective actions.

It is obvious from the record in this case that in 1992 there was a willingness to spend money to develop the RSC, Inc. Landfill, 500 feet south of the Jersey Sanitation Landfill, but not to spend money to timely close the Jersey Sanitation Landfill or to comply with the existing permits by conducting an evaluation of the monitoring plan as part of a groundwater

assessment to investigate ongoing exceedences at the landfill. It is obvious that early on Ms. Shourd and her fellow shareholders took advantage of corporate liability shields, when they parceled the original 200 acres and created CRS, Partnership, as Ms. Shourd herself described in Parties Exhibit 11, page 2 of her December 13, 1990 letter.

Testimony was elicited in this matter that the Jersey Sanitation Landfill is only 10 acres in size, and thus is considered a small landfill. Tr. at 390. Just because it is small does not mean its inconsequential. Recent sample results from the downgradient wells indicate a continuing presence of arsenic over the Class II groundwater quality standards. Ms. Nelson testified that levels of iron in one of the down gradient wells are very high, the highest she has even seen in groundwater sample results from an Illinois landfill.

In the matter of *People v. Gilmer*, PCB 99-27 (August 24, 2000) slip op at 8, the Board found that proper closure of a landfill, including groundwater monitoring and leachate collection, is technically practicable and economically reasonable. Therefore, this factor aggravated the violation in that case. In the *Gilmer* matter, the Respondents were property owners that ended up with a landfill when the operators leasing the property left the site without the Gilmers knowledge. Judgment was obtained against the entity that originally held the lease and operated the landfill. However, the Illinois EPA looked to the respondents, owners of the property, to properly close the site. In October 1997, the Illinois EPA commenced closure on the property and spent approximately $4.1 million on the clean-up. All but $625,000 was funded by the Illinois EPA. Relying on Board precedent, the Board found the respondents to be operators, and thus responsible for closing the landfill. In this context, the Board found that the Respondents were responsible for closing the landfill and that all necessary costs of proper closure of the landfill were reasonable and practicable.

In the instant matter, the Respondent has brought forward testimony that the subject landfill is relatively small. Respondent has elicited testimony that Jersey Sanitation has no cash

reserves and its only assets are the landfill and the landfill's trust fund. Respondent elicited testimony that Respondent closed the landfill three years after acquiring it, at a time when many small landfills closed because new regulations coming into effect would result in much greater expense to meet the requirements and maintain compliance. Tr. at 388 - 389

Nonetheless, unlike the respondents in *Gilmer*, who unsuspectingly became owners and operators of a landfill when the operators abandoned the property, the Respondent in the instant matter knowingly acquired the property as owner with the intent to operate the facility with full knowledge of the undertaking. Ms. Shourd testified that at the time she purchased the landfill, she believed she and the other shareholders anticipated the costs of taking over the landfill. Tr. at 370. Ms. Shourd testified that she knew at the time she purchased the landfill that there were regulations that applied to it, and she knew acquiring a landfill was a large undertaking. Tr. at 356. She also testified that she and the other shareholders anticipated that they would generate enough income to cover the landfill and shut it down. Tr. at 358.

As in the *Gilmer* matter, it should be found in the instant matter that the costs associated with complying with Respondent's permit and performance of a groundwater assessment, are economically reasonable and technically practicable.

The fourth Section 33(h) factor is the technical practicability and economic reasonableness of reducing or eliminating the emissions, discharges or deposits resulting from such pollution source.

This factor should be found to be in aggravation of the violations.

5. **Prior to 1995, Respondent made little progress in improving conditions and compliance with applicable regulations at the landfill. Respondent has taken steps to correct a portion of the violations cited in the instant matter, albeit not in a timely manner. However, no steps have been taken to bring the landfill into compliance with groundwater requirements and to correct violation of Section 12(a) of the Act, 415 ILCS 5/12(a).**

Illinois EPA inspector Rich Johnson testified that during the time of August 30, 1990 to February 25, 1992, in his professional opinion, the landfill was operated poorly:

> Each time I went out there during these five inspections, I saw multiple days of uncovered refuse. I saw uncompacted refuse. I saw litter. I saw the fill area not being correctly contoured the way it was supposed to be contoured. My opinion was that the landfill was operated poorly.
>
> . . . What we want to see is that they voluntarily try to come into compliance with the Environmental Protection Act, and then the Illinois Administrative Code regulations for landfills and solid waste.
>
> I really didn't see that there was much progress at all.

Illinois EPA inspector Charlie King testified as follows regarding conditions at the landfill (Tr. at 166-167):

> Well, it's in pretty poor condition in 1994 when I first inspected it. As is depicted in the photographs, there's a lot of erosion, there was leachate steams observed going off-site, there's exposed refuse, very huge channels.

Asked about conditions at the time of his 1995 inspection (Tr. at 166 -167):

> Somewhat improved. Not – not as well as it could be, but it was – it was – there was some additional cover that was provided, there's – some of the rills were covered that were not covered before.
>
> Somewhere in that area, that time, somewhere between there and the time of the inspection in 1999, the operators of the adjacent landfill, RSC, started taking care of this landfill and provided much improved conditions there.
>
> . . . in 1994, it was – as I mentioned before, it was in poor condition. And in the more recent inspections, it's in much better condition. There's no exposed refuse anymore, that kind of thing.

Blake Harris provided testimony that Respondent was out of compliance with its

financial assurance requirements from February 8, 1993 until October 5, 1999. However, since March 15, 2001, Respondent has failed to submit revised cost estimates and, therefore, has been out of compliance since that date.

Ms. Nelson and Mr. King testified that Respondent has never complied with the groundwater requirements contained in Permit No. 1992-350-SP, other than submitting quarterly monitoring results. Most significantly, Respondent has never formally acknowledged nor taken any steps to correct the exceedences of the Board's groundwater quality standards at the landfill.

Evidence exists within the record that Respondent Jersey Sanitation Landfill is not paying RSC, Inc. to maintain Jersey Sanitation Landfill. Thus, Respondent has incurred no cost for any subsequent compliance obtained at the landfill.

The fifth Section 33(h) factor is any subsequent compliance.

This factor should be weighed against the Respondent.

B. Penalty Factors, Section 42(h of the Act, 415 ILCS 5/42(h)

Section 42(h) of the Act, 415 ILCS 5/42(h) (2002), provides:

> h. In determining the appropriate civil penalty to be imposed under subdivisions (a), (b)(1), (b)(2), (b)(3) or (b)(5) of this Section, the Board is authorized to consider any matters of record in mitigation or aggravation of penalty, including but not limited to the following factors:
>
> 1. the duration and gravity of the violation;
>
> 2. the presence or absence of due diligence on the part of the violator in attempting to comply with the requirements of this Act and regulations thereunder or to secure relief therefrom as provided by this Act;
>
> 3. any economic benefits accrued by the violator because of delay in compliance with requirements;
>
> 4. the amount of monetary penalty which will serve to deter further violations by the violator and to otherwise aid in enhancing voluntary compliance with this Act by the

violator and any other persons similarly subject to the Act; and

5. the number, proximity in time, and gravity of previously adjudicated violations of this Act by the violator.

1. **The gravity of the Respondent's violations has been significant, as has been the duration.**

In just about each section of this brief, the duration of the violation has been calculated. Many of the violations continued for periods of time greater than 5 years. Some have continued for 10 years or more. The sample results indicating exceedences of the Class II groundwater standards were first reported in November 1991. With regard to violation of the groundwater quality standards, this case presents a record of 13 years of ongoing violations.

The gravity of the violations is significant. The landfill violations in the early 1990s posed a serious threat to surface and groundwater. Ms. Shourd admitted, at hearing, that the description of landfill conditions in the August 30, 1990 through February 25, 1992 inspection reports was accurate. Tr. at 349. The gravity of the situation as described in the inspection reports is aggravated by the fact that these conditions were predicted, by early engineering reports, specifically the 1973 subsurface investigation, that advised of significant risk of pollution and impact by the landfill if proper controls were not installed and maintained.

As set out in Section F, the Illinois EPA's permit requirements and demands for the evaluation of the landfill's groundwater monitoring plan, and in particular, the appropriateness of the G103 well as an upgradient well, were issued and outstanding at the time Respondent acquired the landfill and have continued to this day – a span of time covering 14 years. The significance of Respondent's failure to abide by these requirements adds to the gravity of the violation. For fourteen years, this landfill has utilized a monitoring plan that has not been confirmed as truly capable of determining the impact of the landfill. Respondent's failure to confirm the appropriateness of its monitoring plan flies in the face of this state's efforts to

guarantee controls at landfills thereby providing for the protection of the general welfare and health of the people and protection of the environment, including protection of the state's groundwater resource.

With regard to the financial assurance violations, it is significant that the trust account was insufficiently funded, particularly in light of the ongoing exceedences. As is evident from the record, Respondent is claiming it has no assets, or cash reserve. Therefore, the threat already exists that Respondent will claim financial inability.

2. **Respondent has not been diligent in addressing groundwater requirements , financial assurance requirements and landfill contour requirements, and was not diligent is addressing uncovered refuse, leachate, gas releases and Section 12(a) violations from 1989 until 1994. RSC, Inc, an entity that appears to be maintaining the Jersey Sanitation Corporation Landfill free of charge, has been diligent in maintaining the landfill since 1995.**

As stated above, the Illinois EPA inspectors testified that the landfill was in continuing poor condition, in violation of many regulations repeatedly, until 1995. In 1995, it is apparent that RSC, Inc., the neighboring landfill, took over maintenance of Jersey Sanitation Corporation Landfill. Ms. Shourd testified that the Respondent corporation had no cash reserves and its only assets were the landfill property and the landfill trust fund. Asked if any personal money from the shareholders was going into maintenance of the landfill, Ms. Shourd stated "no", no personal money was being used for maintenance of the landfill. Tr. at 367. So, obviously, RSC, Inc is maintaining the landfill for the Respondent free of charge.

It is obvious from the record of this proceeding that Ms. Shourd has been at odds personally with the Illinois EPA since the time she, with other shareholders, purchased the landfill. In Parties Exhibit 35, a report documenting a 1995 inspection of the landfill, Ms. Shourd's continuing conflict with the Illinois EPA is evident:

> Mrs. Shourd stated that, no offense to me, but she and the other landfill owners (of Jersey Sanitation Landfill only) would not be working with the IEPA anymore

> as they have in the past. She stress that they had tried to do whatever the IEPA wanted in the past, but the Agency just didn't want to work with them. I asked her if she would like to discuss a particular problem, or if she would care to expand upon her comments, but she declined and stated that she said all she was going to say on the subject. I told her that if she changed her mind, that she could contact myself or my supervisor, David Jansen.

At hearing, Ms. Shourd testified that she met with an Illinois EPA inspector in late 1988 to discuss her, and her fellow investors, potential purchase of the landfill. She said at the time it was suggested to her by the Illinois EPA that she not buy the landfill, and that the Illinois EPA would soon be cracking down on the current owner of the landfill. Ms. Shourd testified that shortly after she purchased the landfill, the Illinois EPA was angry that she and the other new owners bought the landfill. Ms. Shourd stated at hearing that because the Illinois EPA was angry, it was inspecting the landfill "every few weeks." Tr. at 361.

Pertinent to Ms. Shourd's comment regarding the frequency of inspections, at hearing, Charlie King was able to provide perspective regarding Illinois EPA's customary practices. Mr. King testified that the Illinois EPA attempted to inspect an operating landfill on a quarterly basis. Tr. at 156.

Jersey Sanitation Corporation Landfill was still operating in 1991 and was inspected three times in 1991 – January 23, 1991, May 21, 1991 and November 19, 1991. It was also inspected on February 25, 1992.

Ms. Shourd testified that "after 18 years of trying to get somebody down there to do something without success, we were suddenly inundated with inspectors . . ." Tr. at 361.

Asked if there was a possibility that an Illinois EPA inspector could have arrived at the landfill, prior to the time she purchased it, without her knowing he was there, Ms. Shourd responded that she could agree that an inspector may have come there without her seeing him. Tr. at 362.

Even though Mr. Johnson was not in a position to respond to Mr. Shourd's testimony,

because it was elicited on direct examination of Ms. Shourd the day after Mr. Johnson appeared in court and had been excused from the proceeding, the record of this proceeding makes it very evident why the Illinois EPA may have been trying to steer Ms. Shourd, an individual who had no experience operating landfills, away from the purchase. Mr. Johnson, as the assigned field inspector, was very likely aware of the contents of the permit file and the development of the landfill. He most likely was familiar with the 1973 subsurface investigation report. He knew the challenges of this landfill.

Ms. Shourd most likely also knew something of the development history of this landfill. The application for supplemental permit 1989-177-SP was submitted and reviewed at the time Ms. Shourd was in the process of purchasing the landfill. The 1973 report was attached and made a part of that permit application.

It is evident from the record of this proceeding, and particularly from Ms. Shourd's own words, that she was angry with the Illinois EPA even before she purchased the landfill and attached meanings to her conversations with representatives of the Illinois EPA based on her own belief system. It is apparent that due to her belief system, she brought a demeanor of conflict and a stance of resistence into efforts to bring this site into compliance.

With regard to groundwater requirements, it is clear from the record that Respondent has not exercised due diligence in addressing permit requirements and compliance demands issued by the Illinois EPA, nor has Respondent been diligent in addressing the exceedences.

Respondent was not diligent in complying with financial assurance requirements. It never fully funded the trust fund between the years of 1993 and 1999. At this time it is again out of compliance with the landfill's financial assurance requirements.

Respondent was not diligent in obtaining siting approval from the county for the over height condition. The over height condition was first identified in January 23, 1991. Siting approval was obtained in 1999.

The Respondent's failure to adhere to the final contour requirement of its permit and also the final elevations raised particular red flags for Illinois EPA inspector Rich Johnson (Tr. at 139 - 141):

Q. I just wanted to get back to the elevation issue.
During the time you were inspecting the site, there was an observation that the landfill was out of compliance with its contours. Were there any other problems with the dimensions of the landfill?

A. Well, I also stated it was above its permitted height.

Q. Okay. And how often did you observe that?

A. I think I became aware of that probably in my January 25th – 23rd, 1991 inspection.

Q. Okay. And was that situation addressed throughout the time you inspected that facility?

A. No.

Q. Okay. And again, in your professional experience, what, if anything, does that cause you to observe about the operation of this landfill?

A. I was unsure whether the people that were actually managing the landfill know what their permitted heights and conforming plan, their permitted plans, actually required them to do.

Q. Okay. So it might have appeared that there was some lack of understanding of even what the permit requirements consisted of from the, at least what the landfill dimensions were to supposed to be, is that correct?

A. Correct

Q. Okay. Would that cause you any concern from a point of view of the operation of the landfill?

A. It did.

Q. And why is that?

A. Well, the question would be how they were trying to manage the site to prevent standing water, acknowledge when they filled to the correct height, and stop operating that particular area. They needed to have enough knowledge, working knowledge of the applications that became part of the permits to make sure that they would comply with all the design that went into the landfill.

3. **With regard to economic benefit, Respondent has benefitted from the inappropriate advantage gained by avoiding the cost associated with fully funding its financial assurance fund, and it also benefitted from avoiding the cost of a groundwater assessment.**[1]

There are only two dollar figures contained within the record of this proceeding representing avoided costs and advantage gained from Respondent's failure to comply.

Mr. Harris testified that, using conservative interest rates, Respondent realized a benefit of $25,233.53 by not meeting financial assurance requirements for the subject landfill. A table showing Mr. Harris benefit calculations was entered at hearing as Complainant's Exhibit 7. Complainant's Exhibits 8, 9, 10 and 11 were entered in support of the interest rate Mr. Harris chose to use for this calculation. Tr. at 71-79.

At hearing, Mr. Rathsack testified that a groundwater assessment would cost $9,000. Tr. at 395. Mr. Rathsack testified that he generated this figure because he had been asked by his client Jersey Sanitation Landfill at the time the 1999 application for a supplemental permit was drawn up to provide a comparison of the cost estimates. Tr. at 395. The client wanted to know the total amount of the cost estimate with and without the cost of the assessment. So obviously, as stated above, the client was interested in avoiding the cost of performing a groundwater assessment.

In that no groundwater assessment has been completed, it is not known at this time, what additional work will need to be done to address exceedences of the Board's groundwater quality standards at the landfill.

---

[1] The second amended complaint was filed in this matter on January 2001. The hearing commenced in September 2003. Therefore, Complainant did not expect to put on evidence in response to the amendment to Section 42(h) that went into effect January 1, 2004. In that the hearing began in September, Complainant had not identified nor disclosed witnesses nor opinions relevant to the additional factors contained within the amendment. The hearing in this matter was unexpectedly continued twice. The last day of the hearing was January 13, 2004.

4. **A civil penalty in the amount of $65,000 will serve to deter further violations by the violator and to otherwise aid in enhancing voluntary compliance with this Act by the violator and any other persons similarly subject to the Act**

The two amounts that are available, $9,000 and $25,233.53, that represent cost savings or the benefit of costs avoided, total $34,433.00.

As stated above, the gravity and duration of the violations is significant. It has been assigned an amount of $30,567.00. Complainant requests that the sum of the two amounts, $34,433.00 and $30,567.00, that being, $65,000.00, be assessed

5. **Respondent was issued an administrative citation for two of the violations documented by the Illinois EPA inspector at the time of the January 23, 1991 inspection. Respondent paid the civil penalty assessed for the citation. There have been no other adjudicated violations.**

On March 21, 1991, the Illinois EPA filed an administrative citation against Jersey Sanitation. Respondent Jersey Sanitation Corporation did not file a Petition for Review in response to the administrative citation, and paid the penalty demanded in the citation on April 29, 1991. Parties Exhibits 11, 12, 13, 14, 16 and 17.

CONCLUSION

Complainant respectfully requests that the Board:

A. Find that the Respondent has violated the Act and the Board's regulations as set forth herein;

B. Order the Respondent to cease and desist from all violations of the Act and the Board's regulations, and specifically, consistent with the requirements of Permit No. 1999-209-SP, order Respondent to perform a trend analysis of groundwater sample results, submit a groundwater assessment plan (to include an evaluation of its current monitoring plan and the appropriateness of G103 as an upgradient well) to the Illinois

EPA for approval and initiate implementation of that plan within 30 days of approval by the Illinois EPA, and, if necessary, submit a corrective action/remediation plan to the Illinois EPA for approval and commence implementation of the corrective action plan within 30 days of approval by the Illinois EPA;

C. Order the Respondent to comply with its permit and all conditions contained therein, including the requirement to submit a biennial revision to its cost estimates. Order the Respondent to submit a biennial revision to its cost estimates within 60 days of the date of the Board's order;

D. Assess a civil penalty of sixty-five thousand dollars ($65,000.00) against the Respondent;

E. Award Complainant its costs and reasonable attorney fees. A calculation of said costs and fees shall be provided with Complainant's reply brief;

F. Grant such other relief as the Board may deem appropriate.

Respectfully submitted,

PEOPLE OF THE STATE OF ILLINOIS,
ex rel. LISA MADIGAN, Attorney General
of the State of Illinois

MATTHEW J. DUNN, Chief
Environmental Enforcement Division

BY: _____
JANE E. MCBRIDE
Assistant Attorney General

500 South Second Street
Springfield, Illinois 62706
(217) 782-9031