

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 BROADWAY
ALBANY, NEW YORK 12233-1010

In the Matter

- of -

the Application for Modification of the Part
360 Permit for a Municipal Solid Waste
Landfill on County Route 60 in Lowman, Town
of Chemung, New York,

- by -

CHEMUNG COUNTY,

Applicant.

DEC Application No. 8-0728-00004/00013

DECISION OF THE COMMISSIONER

August 4, 2011

DECISION OF THE COMMISSIONER

Chemung County ("County") has submitted an application to the New York State Department of Environmental Conservation ("Department" or "DEC") to modify the solid waste management facility permit for its municipal solid waste landfill ("Chemung County landfill" or "landfill"). The landfill is located on County Route 60 in Lowman, Town of Chemung, New York. The County's proposed modification would raise the maximum waste acceptance limit at the landfill from 120,000 to 180,000 tons per year, and establish an approved design capacity of 700 tons per day (or 54,600 tons per quarter, assuming a six day per week operation).

The matter was assigned to Administrative Law Judge ("ALJ") Edward Buhrmaster who, on September 3, 2010, issued rulings on issues and party status in this proceeding ("issues ruling"). The ALJ concluded that an issue existed whether noise from landfill cell IV-B operations under the higher maximum waste acceptance rate proposed by the County would exceed the allowable noise limit established by section 360-1.14(p) of title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York ("6 NYCRR"), at properties along Roberts Hollow Road, west of the landfill (see Issues Ruling, at 9).

The issues conference participants filed various motions relating to, and appeals from, the issues ruling. A summary of those motions and appeals follows.

Department staff filed an appeal from the issues ruling on September 22, 2010. Staff contended that noise should not be an issue for adjudication.

Residents for the Preservation of Lowman and Chemung ("Residents") filed an appeal also on September 22, 2010, contending that the landfill's acceptance of Marcellus Shale drilling waste from Pennsylvania violates the State's regulations in 6 NYCRR part 360 that govern municipal solid waste landfills ("Residents' Appeal"). Residents also appealed from the ALJ's determination dated June 3, 2010 that struck various of Residents' submissions relating to Marcellus Shale issues (Residents' Appeal, at 1).

On September 22, 2010, New England Waste Services of New York Inc. ("NEWSNY"), the operator of the Chemung County

landfill, filed a motion for expedited review of, and appeal from, the issues ruling with respect to noise. NEWSNY, in the alternative, requested an interim order from the Commissioner authorizing the landfill, while the appeal was pending, to move forward with operations at the increased waste acceptance level proposed by the permit modification. On October 12, 2010, NEWSNY filed a motion for expedited review and summary judgment dismissing or denying Residents' appeal.

Department staff filed separate letter replies, dated November 3, 2010, to NEWSNY's motions of September 22, 2010 and October 12, 2010, as well as to Residents' appeal dated September 22, 2010. Department staff in its reply asserted that the drill cuttings are not prohibited from disposal at a municipal solid waste landfill governed by 6 NYCRR part 360. NEWSNY in its papers also argued that disposal of Marcellus Shale drill cuttings at the Chemung County landfill is permissible.

By letter dated November 1, 2010, NEWSNY requested that the adjudicatory hearing in this proceeding be stayed pending the outcome of all appeals concerning this matter.

Residents filed a reply, dated November 3, 2010, addressing Department staff's appeal and NEWSNY's motions. By letter dated November 8, 2010, NEWSNY requested permission to file a sur-reply in response to the November 3, 2010 reply of Residents with respect to noise. By letter dated November 9, 2010, Residents opposed NEWSNY's November 8, 2010 request.

By letter dated November 17, 2010, on behalf of the parties in this proceeding, NEWSNY advised the ALJ that the parties had reached settlement on all outstanding noise issues. A fully executed stipulation that memorialized the terms and conditions of the settlement was submitted to the ALJ. In accordance with the Department's Organization and Delegation Memorandum 94-13, the ALJ received the stipulation of settlement as part of the official record of the proceeding and confirmed that all noise issues had been resolved. Accordingly, the ALJ determined that no further rulings, appeals, or adjudication concerning noise were required (see Memorandum dated November 18, 2010 of ALJ Edward Buhrmaster to the Service List).¹

¹ With the acceptance into the record of the stipulation of settlement on noise issues, NEWSNY's November 8, 2010 request for permission to file a sur-reply on the noise issue is now moot, and thus denied.

The remaining questions raised on appeal concern whether Marcellus Shale drill cuttings may be disposed at the Chemung County landfill. The ALJ concluded that issues concerning Marcellus Shale wastes are not relevant to a decision on the County's application to raise the maximum waste acceptance limit at the landfill (see Issues Ruling, at 38). I concur. While the continued receipt of Marcellus Shale drill cuttings at the landfill is foreseeable, that is not the purpose of the pending application. With respect to the pending application, the issue is whether the landfill would comply with Part 360 operating requirements under the higher annual waste acceptance limit. No adjudicable issue has been raised concerning the maximum waste acceptance limit, and, therefore, the application may be granted.

With respect to the disposal of Marcellus Shale drill cuttings at the landfill, I agree that the Department's determination to authorize the receipt of the drill cuttings was previously granted through a separate administrative procedure (see id., at 34). Nevertheless, because it is foreseeable that Marcellus shale drill cuttings will be a part of the increased waste stream for the landfill, I consider it appropriate to address two of Residents' issues regarding this waste stream in the context of this decision:

(1) whether the landfill's acceptance of Marcellus drill cuttings from Pennsylvania violates the State's regulations in 6 NYCRR part 360; and

(2) whether adequate sampling of the drill cuttings has been performed in order to characterize the drill cuttings.

Based on this record and applicable legal authority, the disposal of Marcellus Shale drill cuttings in a municipal solid waste management facility is not prohibited by the State's solid waste ("Part 360") regulations. In addition, I conclude that the sampling of the drill cuttings was sufficient. During the course of this proceeding, Department staff circulated a special condition stating that, with respect to Marcellus Shale wastes, only drill cuttings may be accepted for disposal. This special condition reflects Department staff's earlier approval of drill cutting disposal at the landfill, and is to be incorporated into the revised landfill permit.

Accordingly, the matter shall be remanded to Department staff for issuance of a permit that incorporates the proposed modification to raise the maximum waste acceptance limit at the

landfill from 120,000 to 180,000 tons per year, and establish an approved design capacity of 700 tons per day (or 54,600 tons per quarter, assuming a six day per week operation). In addition, the permit shall include the draft special condition concerning the disposal of Marcellus Shale wastes.

Several questions regarding the operating procedures governing the disposal of drill cuttings at the Chemung County landfill were raised in this proceeding and require additional review. These include:

- whether the landfill has implemented adequate procedures to ensure that the waste loads of drill cuttings, which may come from a number of Pennsylvania-based drilling sites, do not contain other Marcellus Shale wastes, including those of higher radioactivity;

- whether the alarm level settings for the landfill's radiation detection system are appropriate;

- whether the procedures relating to the disposal of drill cuttings in the landfill cells and the landfill's leachate management are sufficient; and

- whether adequate controls are in place to ensure that drill cuttings from oil-based media are not disposed in the onsite construction and demolition debris landfill.

I am directing Department staff to review the aforementioned questions to determine whether additional or revised conditions to the landfill permit, or revisions to the landfill's operating procedures, are necessary, and if so, to commence, to the extent appropriate, permit modification proceedings pursuant to 6 NYCRR 621.13. Within thirty (30) days of Department staff's receipt of this decision, subject to any extension that I may grant, Department staff shall advise NEWSNY and Chemung County in writing whether modification of the landfill's permit and/or the landfill's operating procedures with respect to the disposal of drill cuttings is required. Department staff shall copy Residents and my office on the correspondence.

This review, however, is separate and apart from consideration of the increased waste acceptance level. The issuance of the revised permit that incorporates the increased waste acceptance level, and the special condition addressing

Marcellus Shale wastes, is not contingent upon this additional review.

DISCUSSION

My task on this interim appeal is to determine whether adjudicable issues as set forth in 6 NYCRR 624.4(c) have been raised by the parties. In this proceeding, no disputed issues exist between applicant and Department staff with respect to the application. Where contested issues are not the result of a dispute between applicant and Department staff (see 6 NYCRR 624.4[c][1][i] and [ii]), but are proposed by third parties, as in this case, an issue must be "both substantive and significant" to be adjudicable (see 6 NYCRR 624.4[c][1][iii]).

Substantive and Significant Standard

An issue is substantive "if there is sufficient doubt about the applicant's ability to meet statutory or regulatory criteria applicable to the project, such that a reasonable person would require further inquiry" (6 NYCRR 624.4[c][2]). An issue is significant "if it has the potential to result in the denial of a permit, a major modification to the proposed project or the imposition of significant permit conditions in addition to those proposed in the draft permit" (6 NYCRR 624.4[c][3]).

Where Department staff has reviewed an application and finds that a component of an applicant's project, as proposed or as conditioned by the draft permit, conforms to all applicable statutory and regulatory requirements, the burden of persuasion is on the potential party proposing any issue related to that component to demonstrate that it is both significant and substantive (6 NYCRR 624.4[c][4]).

Pursuant to 6 NYCRR part 624, Residents were required to submit a petition for party status (see 6 NYCRR 624.5[b]). Residents' petition for full party status, dated April 8, 2010, was received as Issues Conference Exhibit ("IC Exh") 7 ("petition"). A petition for party status must provide an offer of proof identifying witnesses and specifying those elements of the application or proposal that are being challenged or questioned and the grounds upon which the challenges are based. Assertions by potential parties cannot simply be conclusory or speculative but must have a factual or scientific foundation (see Matter of Bonded Concrete, Interim Decision of the Commissioner, June 4, 1990, at 2). Moreover, if a potential party cannot adequately explain the nature of the evidence that

it expects to present and the grounds upon which its assertions are made, an issue is not raised.

Offers of proof by a petitioner may be rebutted by the application, the draft permit and proposed conditions, the analysis of Department staff including staff's pre-issues conference review of an application, any documents prepared pursuant to the State Environmental Quality Review Act, the record of the issues conference, and authorized briefs, among other relevant materials and arguments. Mere speculation is insufficient to establish that an issue is substantive and significant. Conducting an adjudicatory hearing "where 'offers of proof, at best, raise [potential] uncertainties' or where such a hearing 'would dissolve into an academic debate' is not the intent of the Department's hearing process" (Matter of Adirondack Fish Culture Station, Interim Decision of the Commissioner, August 19, 1999, at 8 [quoting Matter of AZKO Nobel Salt Inc., Interim Decision of the Commissioner, January 31, 1996, at 12]).

Request for an Increased Waste Acceptance Limit

As noted, the County submitted an application to the Department to raise the maximum waste acceptance limit at the landfill from 120,000 to 180,000 tons per year, and to establish an approved design capacity of 700 tons per day (or 54,600 tons per quarter, assuming a six day per week operation).

In this proceeding, Residents directed many of their arguments, not to the maximum waste acceptance limit, but to the landfill's acceptance of Marcellus Shale drill cuttings. Residents propose that the landfill permit be modified to specifically prohibit acceptance of Marcellus Shale waste streams. Residents contend that such waste streams are likely to be too radioactive for disposal in a landfill regulated under Part 360 (see Petition, at 8-11 and Exhibits A and B thereto, IC Exh 7).

NEWSNY maintains that the issue of the landfill's acceptance of Marcellus Shale drill cuttings is unrelated to the permit modification request for an increase in the waste acceptance limit. It notes that the modification was initially proposed in December 2006, prior to any consideration of the disposal of Marcellus Shale wastes at the landfill. According to NEWSNY, the purpose for requesting an increase in the annual waste acceptance limit is to respond to market conditions and more fully utilize landfill space (see IC Exh 5, Item 3; see

also Tr, at 184; Affirmation of Thomas S. West, Esq., October 12, 2010 ["West Affirmation"], at ¶ 13).

NEWSNY further argues that the application proposes no change to the permissible waste streams. It takes the position that, as a matter of Statewide import, the determination of which wastes from the natural gas industry may be disposed in a municipal solid waste landfill should be addressed on the basis of regulations and policies applicable to all facilities, and not decided within the context of a particular permit application.

Department staff stated at the issues conference that it would be efficient to allow issues of allowable wastes to be considered in the instant proceeding (see, e.g., Tr at 78-79 [issues related to Marcellus Shale waste streams are properly heard in this proceeding], 82-83, and 86). Nevertheless, staff argues that, as to the disposal of Marcellus Shale drill cuttings, Residents have not raised an adjudicable issue (see, e.g., Tr at 97, 221-22).

The ALJ concluded that, "[a]s a practical matter" issues about Marcellus Shale wastes could be adjudicated in this proceeding, "based on the record developed at and since the issues conference" (Issues Ruling, at 38). However, the ALJ determined that these issues need not be considered, because they are "not relevant to a decision on the County's application [to raise the annual waste acceptance limit]" (id.).

I agree with the ALJ's determination that no adjudicable issue has been raised concerning the County's application to increase the maximum waste acceptance limit. The matter referred to the Office of Hearings and Mediation Services solely concerned the request to increase the landfill's waste acceptance limit (see Issues Ruling, at 1; Issues Conference Exhibit 2, at 1; Issues Conference Exh 5, Item 3 [letter dated December 19, 2006 from Larry Schilling of NEWSNY to Lisa Porter of the Department]). The disposal of drill cuttings at the landfill was not a part of the application, and, in fact, had been separately approved by Department staff in January 2010. With the resolution of the noise issue, nothing in the record indicates that the County's request for a higher annual waste acceptance limit does not comply with Part 360 operating requirements. Accordingly, the permit modification application may be granted.²

² Department staff and NEWSNY assert that Residents could raise their concerns about Marcellus Shale wastes separately by: requesting a modification of the

Disposal of Drill Cuttings

Throughout the proceeding, Residents contended that drill cuttings cannot be accepted at the Chemung County landfill, and asserted that such drill cuttings are a prohibited waste stream. Although the determination to allow the disposal of drill cuttings was the subject of a separate administrative procedure, the parties fully argued this question. In addition, it is foreseeable that drill cuttings will constitute a significant portion of the increased waste stream at this facility. Accordingly, I conclude that it is appropriate to address Residents' contentions regarding the acceptability of drill cuttings for landfill disposal in this proceeding.

-Background

In late 2009, NEWSNY began accepting Marcellus Shale drill cuttings from Pennsylvania for disposal at the Chemung County landfill (see Issues Ruling, at 27; Issues Conference Transcript ["Tr"], at 144). These drill cuttings are generated during the initial drilling of the well, and are not part of hydraulic fracturing operations that may occur subsequent to the drilling of the well.

By e-mail dated January 21, 2010, Department staff approved this waste stream for disposal at the Chemung County landfill (see Exhibit A to the Petition). The Department staff e-mail states, in pertinent part, "[b]ased on the analytical data provided, and the letter provided by Benchmark Analytics, Inc[.] addressing the ignitability value initially reported, the drill cuttings from Fortuna may be dispose[d] of in the Chemung [municipal solid waste] landfill." The e-mail further provided that cuttings from wells utilizing oil-based cutting fluids may be disposed in the municipal solid waste landfill only, but cuttings generated from wells using water-based cutting fluids may be disposed in the municipal solid waste landfill or Chemung County's onsite construction and demolition debris landfill (see id.). The drill cuttings that are disposed at the landfill are managed as solid waste, and are not used for daily cover or any other beneficial use (Tr, at 204; see also Exhibit A to the Petition).

Chemung County landfill permit under 6 NYCRR 621.13(b); or by requesting, pursuant to 6 NYCRR part 619, that DEC issue a declaratory ruling on Residents' claim that various Marcellus Shale waste streams may not be legally disposed at a part 360 landfill (see, e.g., Department staff reply, at 2-3; West Affirmation, at ¶¶ 8, 17-18).

Based on the disposal data provided, drill cuttings from Marcellus Shale exploration have become a substantial component of the waste coming to the Chemung County landfill (see, e.g., Tr at 147-48 [drill cuttings being disposed at a rate of 1,000 to 2,000 tons per week]; see also Tr, at 81-82 [Department staff noting that rate of disposal of Marcellus Shale drill cuttings "will be free to increase" if the application to raise the maximum waste acceptance rate at the landfill is granted]). In an attachment to a letter dated May 18, 2010, NEWSNY notes that drill cuttings constituted 28 per cent of waste disposed at the landfill in February 2010, 50% in March 2010 and 54% in April 2010.³

NEWSNY indicates that the information includes data for drill cuttings regardless of formation, but presumes that the majority of drill cuttings that have been received at the Chemung County landfill originate from Marcellus Shale drilling operations.⁴

-Characterization of the Drill Cuttings/Processed and Concentrated Prohibition

Department staff characterized the drill cuttings as rock fragments or ground rock that result from a drill bit drilling through rock (see, e.g., Tr, at 164, 220). In the drilling operation, drilling fluids bring the cuttings from the bottom of the well to the land surface. According to Department staff, the solids are then separated from any liquid medium that has been used. These separated solids constitute the drill cuttings (see Tr, at 150). Department staff noted that the separated liquids do not come to the landfill (see Tr, at 150-51). These fluids have been referred to as "drilling mud," "muds" or "mud fluid" (see, e.g., Tr, at 201, 202, and 246, respectively). Some drilling fluids may, however, still coat the drill cuttings after the separation process or otherwise be a part of drill cutting waste loads (see Tr, at 139-140 [fluid is extracted from

³ The record does not provide any volumetric percentage of the waste streams.

⁴ The County and NEWSNY had advised Department staff, prior to the issues conference, of two incidents at the landfill where non-drill cutting waste related to Marcellus Shale drilling was disposed. Following an investigation, Department staff concluded that it had "no reason to believe [that] unpermitted waste has been disposed of at the [Chemung County] landfill" (see letter dated June 30, 2010 from Lisa P. Schwartz, DEC Assistant Regional Attorney, to ALJ Buhmaster [quoting from letter dated June 30, 2010 from Gary M. Maslanka, Environmental Engineer, DEC Division of Solid and Hazardous Materials]).

the drill cuttings "to the extent possible," and some fluids remain on the cuttings], 202, 239, and 246)).

Drill cuttings, which consist of a mixture of the different rocks through which a well is bored, may contain naturally occurring radioactive material ("NORM") (see, e.g., Tr, at 243). Radioactive materials that are required to be managed or disposed at a land disposal facility that is subject to the regulations under 6 NYCRR parts 380 [Prevention and Control of Environmental Pollution by Radioactive Materials], 382 [Regulation of Low-Level Radioactive Disposal Facilities], or 383 [Regulations for Low-Level Radioactive Waste Disposal Facilities], may not be disposed at a municipal solid waste management facility governed by 6 NYCRR part 360 (see 6 NYCRR 360-1.5[b]). Parts 380, 382 and 383, however, do not apply to naturally occurring radioactive material ("NORM") or to materials containing NORM unless that material has been "processed and concentrated" (emphasis added) (see 6 NYCRR 380-1.2[e], 382.1[c][5]; and 383-1.1[b][5]). Accordingly, the regulations do not prohibit NORM or material that contains NORM that has not been "processed and concentrated" from disposal in a Part 360 municipal solid waste landfill.

Residents contend that the drill cuttings received by the Chemung County landfill from Marcellus Shale drilling are NORM that is "processed and concentrated." Residents argue that the separation of the drill cuttings from their liquid medium should be considered "processing" and that, as a result, the NORM is concentrated in the drill cuttings (see, e.g., Tr, at 225, 244 [separation of cuttings from fluids is form of processing and concentration]).⁵ Accordingly, Residents maintain that the acceptance of Marcellus Shale drill cuttings at the landfill violates 6 NYCRR 360-1.5(b) (see Residents' Appeal, at 1, 10).⁶

⁵ NORM is an inherent part of many geologic materials. At the issues conference, NEWSNY noted that the drill cuttings contain naturally occurring radioactive material (see Tr, at 243-44). Department staff stated that "[l]ike all rock, drill cuttings contain naturally occurring radioactive material, or NORM" (see Department Staff response, dated November 3, 2010, to [Residents'] September 22, 2010 appeal of ALJ Rulings, at 2).

⁶ Residents state that it is only the wastes that originate from horizontal drilling in the Marcellus Shale "that raise an issue regarding the propriety of disposal in a [municipal solid waste] landfill, since these but not wastes from the vertical leg [of drilling] can be expected to be relatively highly radioactive" (May 18, 2010 letter, from Gary A. Abraham, Esq., to ALJ Buhrmaster, at 1; see also Tr at 152).

Residents argue that the wastes derived from Marcellus Shale horizontal drilling operations are processed and concentrated material, and must be managed at a landfill specially licensed for disposal of processed and concentrated NORM (see id. at 2). Residents maintain that the manner in which Marcellus Shale drill cuttings are generated constitutes more than simple removal of rocks or other natural materials from the ground. They argue that the waste must be examined for radiological impact and suitability for disposal in a Part 360 municipal solid waste landfill (see Exhibit B to the Petition).

Department staff asserts that the drill cuttings have not been processed and concentrated. According to staff, the "simple removal" of rocks or other natural materials from the ground does not constitute processing and concentration of these materials (see Tr, at 220; see also Tr, at 221 [staff position that drill cuttings are not subject to 6 NYCRR parts 380, 382 and 383, and are "not prohibited from disposal at the (Chemung County) landfill"]).

NEWSNY also contends that the material is not processed or concentrated (see Tr, at 210-11, 246). NEWSNY notes that fluids used for drilling at the Pennsylvania mining sites are either water-based or oil-based. According to NEWSNY, cuttings are physically separated from the fluids if they are in a fluid medium, and this occurs through shakers and other mechanisms (see Tr, at 210-11). NEWSNY maintains that this procedure does not constitute processing and does not concentrate the waste (see id.; see also Issues Ruling, at 37).

The terms "processed" and "concentrated" are not specifically defined in the regulations. Accordingly, the terms are accorded their ordinary meaning. Whether or not the physical separation of the drill cuttings from the fluids constitutes processing, nothing in Residents' offer of proof supports the proposition that this physical separation results in the concentration of NORM, or otherwise increases the strength, density or intensity of NORM in the drill cuttings. Residents' claim that this separation procedure elevates the radioactivity of the drill cuttings is speculative and unsubstantiated.

In addition, Residents' characterizations appear in part based upon comparisons of the radioactivity of drill cuttings to other Marcellus Shale waste streams (such as production brine, and dewatered brine and sludge waste) that are not drill cuttings and are prohibited from disposal at the Chemung County

landfill (see, e.g., Issues Ruling, at 35 [NEWSNY not proposing to take production brine at the Chemung County landfill]). As NEWSNY demonstrated, Residents were inappropriately focusing on non-drill cutting waste in their characterization of the drill cuttings (see Affirmation of Thomas West, Esq., dated October 12, 2010 ¶ 36).

Residents have failed to raise an adjudicable issue concerning whether Marcellus Shale drill cuttings are "processed and concentrated" NORM. Based on applicable legal authority, the drill cuttings constitute a solid waste that may be disposed at the Chemung County landfill.

Sampling of the Drill Cutting Waste

Residents also contend that additional information must be provided to determine the specific radioactivity of the waste (see Petition, at 9 & Exh B).

CoPhysics Corporation ("CoPhysics") prepared, on NEWSNY's behalf, a Radiological Survey Report dated April 2010 ("CoPhysics Report"). The CoPhysics Report presented a radiological survey of Marcellus Shale samples collected at sites in northern Pennsylvania as well as drill cuttings delivered to three of NEWSNY's landfills (West Affirmation, at ¶ 22) and samples from the background soil and rock at the landfills (see CoPhysics Report, Exh 10, Appendix A). The report stated that there are three main groups of radioactive elements making up the natural radioactivity background in the earth's crust: the uranium-238/radium-226 radionuclide series, the thorium-232 radionuclide series, and potassium-40 (CoPhysics Report, at 2). According to the report, these elements exist in all soil and rock in varying concentrations (see id.).

The results of the investigation found that the Pennsylvania drill cuttings had radium-226 concentrations that are slightly greater than the local background at the NEWSNY landfill sites in the southern tier of New York (including the Chemung County landfill). The thorium-232 and radiopotassium levels in the cuttings were less than the background levels at the NEWSNY landfill sites (id. at 5). The report further stated:

"The radium levels observed are less than the EPA cleanup guideline for unrestrictive use. . . . The EPA uses this guideline for cleanups of sites contaminated with radium or thorium so that they may be used by the general public for homes, schools, businesses, etc." (id.).

Residents argue that the sampling reported in the CoPhysics Report is not representative of the horizontal cuttings from the Marcellus Shale, and seek to raise a factual issue concerning the source of the analyzed drill cutting samples. In addition, Residents question the qualifications of CoPhysics and the procedures that it used in conducting the sampling of drill cuttings (see, e.g., Appeal, at 8-9). Residents also submitted reports from two of their consultants which challenged the CoPhysics Report (see, e.g., letter report of Conrad Volz dated May 19, 2010 to Gary A. Abraham, Esq., submitted to ALJ Buhrmaster under cover of a letter dated May 20, 2010; report of Marvin Resnikoff, Ph.D., May 19, 2010 [challenging the methodology that CoPhysics employed and questioning the source of the samples]).

The CoPhysics Report, however, specifically noted the material type of the samples and that these samples came from the Marcellus Shale (see id., at Appendix A [Radioactivity Measurement Results], and Appendix B [Soil Sampling Field Data Sheets]; see also Tr, at 234; letter dated June 9, 2010 from Thomas West, Esq., to ALJ Buhrmaster, at 1-2; Billman Geologic Consultants, Inc. memorandum dated April 17, 2010 [Attachment 1 to the June 9, 2010 letter from Thomas West, Esq. to ALJ Buhrmaster]; West Affirmation, at ¶ 38; Department staff letter dated June 30, 2010 to ALJ Buhrmaster, at 1-2).

That a potential party or its consultant or expert takes a position opposite to that of the applicant or Department staff does not of itself raise an issue (see, e.g., Matter of Crossroads Ventures, LLC, Interim Decision of the Deputy Commissioner, December 29, 2006, at 9; Matter of Jay Giardina, Interim Decision of the Commissioner, September 21, 1990, at 2 ["Offers of expert testimony contrary to the application are not . . . necessarily adequate in and of themselves to raise an issue for adjudication"]). In this instance, Residents' challenges to the sampling, including sampling methodology, as well as its contentions regarding CoPhysics's qualifications, have been refuted or shown to be in error (see, e.g., Department

staff reply, at 2 fns 1&2; Department staff letter dated June 30, 2010, at 1-2; West Affirmation, at ¶¶ 36-37).

Accordingly, no further sampling is necessary.

Landfill operating procedures

The provisions of each Part 360 permit must assure, "to the extent practicable, that the permitted activity will pose no significant adverse impact on public health, safety or welfare, the environment or natural resources, and that the activity will comply with the [Part 360] requirements" (6 NYCRR 360-1.11[a][1]). To provide that assurance, conditions may be imposed on a Part 360 permit (see id.).

In addition, each Part 360 municipal solid waste landfill is required to have an operation and maintenance manual (see 6 NYCRR 360-2.9). The operation and maintenance manual is to include, in part, a description of the landfill's receiving and monitoring process for solid waste, identification of those wastes required to undergo special handling or treatment before acceptance, procedures for identification of the solid waste to be restricted, an environmental monitoring plan, and a leachate management plan (see id.). The manual must be sufficiently detailed "to explain all pertinent methods of operations and related procedures" (see id., introductory paragraph).

As noted, pursuant to the existing Part 360 solid waste regulations, drill cuttings are a solid waste that may be disposed at the Chemung County landfill. However, in this proceeding a number of questions were raised relating to the operating procedures at the landfill governing the disposal of this waste. Although these questions were not germane to the application for an increased maximum waste acceptance limit, I conclude that further inquiry by Department staff, separate and apart from this proceeding, is warranted to ensure that the landfill's permit and operating procedures adequately address the disposal of the waste (see ECL 27-0703[2]; 6 NYCRR 360-1.11[a][1] and 360-2.9).

As the record indicates, NEWSNY has undertaken various measures to ensure the proper handling of the drill cuttings and to prevent the disposal of other unacceptable waste materials at the landfill. Residents, however, raised several questions, including the landfill's compliance with the operation and

maintenance manual requirements set forth in 6 NYCRR 360-2.9 (see, e.g., Petition, at 10 & n34).

Accordingly, in consideration of the questions that Residents have raised, I have decided that Department staff should determine whether any clarifications or revisions to the landfill's permit conditions are appropriate. Similarly, these questions should be reviewed in the context of the procedures set forth in the landfill's operation and maintenance manual and leachate management plan to determine whether any clarifications of the manual or plan are necessary. It may be that the current permit conditions and landfill operating procedures are sufficient to address the disposal of this authorized waste stream. However, I determine that it would be appropriate for staff to consider the following questions set forth below.

-Radiation monitoring/detection system

A Part 360 landfill facility, as part of its operation and maintenance manual, is required to establish procedures relating to its solid waste receiving process (see 6 NYCRR 360-2.9[g]). Those procedures, in part, are to address any special handling or treatment that a specific waste stream may require (see id.).

With respect to the drill cuttings, NEWSNY voluntarily went beyond the applicable requirements to install a radiation detection system at the landfill's truck scales/weigh station. By letter dated June 1, 2010, NEWSNY submitted, as part of Attachment 2, a document entitled "Calculation of Radiation Monitor Alarm Setpoint and Procedure to Reject or Accept NORM" which provides information on setting the alarm of the detection system, including separate investigation and rejection levels.

The system is meant to ensure that "any levels of radioactivity exceeding regulatory limits are appropriately addressed" (see Tr, at 176; Issues Ruling, at 30). This represents a prudent and conservative step to ensure that other types of wastes generated from Marcellus Shale exploration are not inadvertently mixed with drill cuttings that will be received at the landfill for disposal.

NEWSNY noted that the detection system would serve as a mechanism "to make sure that the wastes from the Marcellus shale operations, drill cuttings and if there are anything else, solid wastes, that would otherwise qualify to come into this facility, do not have any significant levels of radioactivity beyond the levels that have been identified in [NEWSNY's] screening report"

(Tr, at 176-77). NEWSNY indicated that the detection system will ensure that the facility is "only getting only very, very low levels of radioactivity in the facility" (see Tr, at 244; see also CoPhysics Report, at 6 ["t]he purposes of the detection system is to ensure that only the acceptable drill cutting rock is received and no pipe scale, filtrates or sludges containing NORM are inadvertently disposed").

In a subsequent submission by NEWSNY, it was stated that the purpose of the alarm setpoint is "to ensure that technologically-enhanced naturally-occurring radioactive materials (TENORM) are not accepted into the landfill," but it noted that non-concentrated and non-enhanced NORM would be acceptable for disposal (see Attachment 2 to letter dated June 1, 2010, from Thomas West, Esq., to ALJ Buhrmaster).

NEWSNY provided a draft radiation monitoring protocol (see Hearing Exh 13) and a subsequently updated protocol (see Attachment 2 to letter dated June 1, 2010, from Thomas West, Esq. to ALJ Buhrmaster) ("updated protocol"). NEWSNY previously submitted a technical manual dated September 2006 for the radiation detection system (see Hearing Exh 14).

The updated protocol addresses the screening of incoming waste shipments for radioactivity and the procedures to be followed. These procedures are to help prevent any inadvertent disposal of radioactive materials that are not allowed to be disposed in a Part 360 municipal solid waste landfill.⁷

⁷ Specifically, the updated protocol provides for the following:

"Each inbound load that enters the landfill shall be screened for radioactivity using a Ludlum Model 375 Waste Monitor, or equivalent, located at the scale/weigh station. This monitor is a 'drive through' system that scans the waste hauling vehicles as they pass between 2 radiation detectors at slow speed or stop on the scale.

"As a truck passes the detectors at the scale, the radiation monitoring system measures the radiation level emitted by the truck in kilo counts per second (kcps). The number of kcps over the normal 'background' radiation level of the area is compared to the alarm setpoint indicated on the digital read-out in the scale house. Backlit indicators warn of a low alarm level (yellow), a high alarm level (red), and low battery (yellow). A green status light is [an] indication of normal instrument operation. The system shall be calibrated at least annually.

"In the event the alarm sounds, the scale house attendant will immediately notify the truck driver to stop. The scale house attendant shall record the reading on the Radiation Monitor Alarm Record. The driver will be instructed to pull off of the scale and park in the designated area away from the detectors. The driver will be instructed to walk near one of the

Residents challenge NEWSNY's alarm settings and propose a lower level for purposes of both investigation and rejection, based on a federal (Resource Conservation and Recovery Act) cleanup standard for surface soil at contaminated sites. Residents, as set forth in a memorandum dated June 30, 2010 from M. Resnikoff to Gary Abraham, Esq. (June 30, 2010 memorandum), raised specific concerns about the "calculation of the radiation monitor set point and the procedures to accept or reject [waste]" (see June 30, 2010 memorandum, at 2-3). Residents contended, in part, that:

- the level of 15 pCi/g (average picocuries per gram) that NEWSNY proposed for the radiation monitoring/detection system alarm level was too high. Drawing on a cleanup standard under the Resource Conservation and Recovery Act ("RCRA") for surface soil at contaminated sites, Residents argued that a lower level of 5pCi/g for total RA (Ra-226 and RA-228) should be utilized;
- NEWSNY failed to make clear as to which radionuclides it is calculating an attenuation factor; and
- NEWSNY's proposed investigation level of 15 pCi/g and waste rejection level of 50 pCi/g were too high. According to Residents, the rejection level should be set at 5 pCi/g based upon the RCRA cleanup level for surface soil.

As discussed, the State's current regulations allow for the disposal of drill cuttings in a Part 360 landfill. However, establishing appropriate levels for the radiation detection system will help ensure that other waste that exhibits

detectors to determine if he had received a recent nuclear medicine procedure. If the alarm sounds due to the driver himself, the driver shall pull the truck back onto the scale and park it and then walk at least 75 feet away so that the monitor reading of the truck along can be determined (or use an alternative driver). If the truck alone does not cause an alarm, it may pass through

"If the truck is found to be the cause of the alarm, a member of the landfill staff will investigate by checking the type and origin of truck contents and by using a hand-held radiation detector to determine if the radiation source is an isolated spot or is diffused throughout the load. Immediately after the investigation, the staff member will notify the NYSDEC and the County via telephone if such officials desire such notification. A written record detailing the incident will be included in the facility's monthly operational report to the State. The site staff will work cooperatively with the regulatory agencies to determine the best course of action at the time of the alarm notification."

unacceptable levels of radioactivity is not received at the landfill.

Accordingly, I am directing that Department staff review the alarm levels that NEWSNY has selected for its radiation detection system. Department staff is to consider whether the alarm levels are adequate to (a) monitor the loads of Marcellus Shale drill cuttings received at the landfill to ensure that such loads do not contain non-drill cutting wastes of higher radioactivity that are prohibited from disposal at the landfill, and (b) determine whether a load should be investigated or rejected. Staff's evaluation shall address the level or levels at which the detection system alarm should be set; the level above which the landfill would reject waste for disposal; and how often the calibration of the radiation detection system should be checked to ensure that the system performs its intended function.

Department staff notes that NEWSNY will begin collecting samples from the waste loads for determination of NORM concentrations in the waste "and will compare those values to instrument readings from those waste loads to validate their calculation method" (see letter dated June 30, 2010 from Department staff to ALJ Buhrmaster, at 2). Department staff shall consider whether the comparison of radiation portal monitor readings to waste load concentrations represents an appropriate approach in setting the site specific exclusion or alarm limits on the detector.

In its review of the radiation monitoring/detection system, Department staff shall also consider:

- (a) whether any adjustments to the detection system may be necessary to account for disposal truck body thickness or other truck body characteristics;
- (b) the range of accuracy of the detection system where material of higher radioactivity may be shielded or otherwise contained within the rest of the waste load;
- (c) the degree of operator training for the detection system that may be necessary;
- (d) the appropriateness, as noted in the updated protocol, to have the same backlit indicator (yellow)

to warn of a low alarm level and a low battery (see, supra, 16n7); and

(e) whether the landfill's operating procedures adequately address the situation where waste loads continue to trigger the alarm even after the steps to check the load (as set forth in the operating protocol) are performed, and whether the waste would be returned to the site of generation or sent to another location for disposal. Department staff shall also consider the extent of notifications that NEWSNY and the County must provide Department staff with respect to any rejected waste loads.

-Onsite construction and demolition debris landfill

Pursuant to Department staff's authorization, NEWSNY has been disposing drill cuttings which had been in a water-based medium in Chemung County's onsite construction and demolition debris landfill (see, e.g., Tr, at 141-42). Department staff is directed to review the sufficiency of the procedures that NEWSNY has established to ensure compliance with Department staff's direction that drill cuttings from an oil-based medium are not disposed in the onsite construction and demolition debris landfill.

-Landfill leachate management

Residents set forth a number of contentions relating to the impact of Marcellus Shale wastes on leachate (see Exhibit B to the Petition [Memorandum from Marvin Resnikoff, Ph.D. of Radioactive Waste Management Associates, April 7, 2010]). Their arguments are generally not relevant here as they were directed to waste streams, such as flowback water arising from Marcellus Shale exploration, which are not authorized to be disposed at this landfill. To the extent that residents claim that leachate from the drill cuttings can exhibit a level of radioactivity that would exceed allowable drinking water standards for radium and would impact treatment at a wastewater treatment facility, their claims are speculative and insufficient.

NEWSNY's installation of the radiation detection system will further ensure that unauthorized waste is not received at the landfill which might have an impact on landfill leachate.

Part 360 municipal solid waste landfills are required to have a leachate management plan (see 6 NYCRR 360-2.9[j]), which must address the leachate collection, storage, removal and treatment systems to be utilized and discuss operational requirements including leachate monitoring. I am directing Department staff to review leachate management practices at the landfill to determine whether the current landfill procedures are sufficiently explained in the landfill's operation and maintenance manual and its leachate management plan. Accordingly, Department staff is to consider:

(a) whether a specific separation distance between the leachate collection system and the first layer of Marcellus Shale drill cuttings is necessary for any reason. This review should consider whether, due to the physical attributes of the drill cuttings, including the extent to which these are finely-grained, such a separation distance is appropriate to avoid potential clogging or other operational impacts to the leachate collection and removal system; and

(b) whether any circumstances exist that support adding parameters to the landfill's current leachate testing protocol.

-Timing

I direct Department staff to conduct a review of the aforementioned subjects (that is, radiation monitoring/detection system, onsite construction and demolition debris landfill, and landfill leachate management). Within thirty (30) days of its receipt of this decision, Department staff is to advise NEWSNY and Chemung County in writing of any modifications to the landfill permit and/or of any revisions to the landfill's operating procedures that may be necessary. Department staff shall copy Residents and my office on this correspondence. If Department staff should propose any additional permit modifications, the proceedings on those modifications shall be conducted pursuant to 6 NYCRR 621.13.

In the event that Department staff needs additional time to address any of the aforementioned subjects, Department staff is to contact my office if it seeks an extension. Any request for an extension must be copied to Chemung County, NEWSNY, and Residents.

Draft permit condition

By letter dated June 30, 2010, Department staff circulated to the issues conference participants a special condition to the draft permit on the disposal of Marcellus Shale wastes. The permit condition specifies that drill cuttings may be disposed at the Chemung County landfill, lists categories of Marcellus Shale waste that may not be disposed at the landfill, and allows for other Marcellus Shale waste streams to be disposed if formal written approval is received from the Department.

The special condition that Department staff circulated reads as follows:

" __ Disposal of Marcellus Shale wastes.

The following applies to wastes generated during any drilling and/or development of natural gas wells targeting the Marcellus Shale, and/or wastes generated from the production of natural gas from any wells completed in the Marcellus Shale.

- a. Flowback water related filter sludge, production brine related filter sludge, and free-phase liquids of any origin, are prohibited from disposal.
- b. Drill cuttings including those generated from operations using air, water and/or oil-based drilling fluids may be accepted for disposal.
- c. Except as noted above, acceptance of all other waste streams requires prior written approval from the Department.
- d. The amount and type of waste accepted at the landfill must be reported in the facility's annual report to the Department."

As indicated, the draft permit condition authorizes the disposal of drill cuttings at the landfill, and prohibits the disposal of flowback water related filter sludge, production brine related filter sludge, and free-phase liquids of any origin.

The language in the permit condition memorializes Department staff's January 2010 approval for the disposal of drill cuttings at the landfill, while establishing other prohibitions and limitations on disposal of Marcellus Shale wastes. As discussed earlier in this decision, the drill cuttings being received at the landfill constitute a solid waste that may be disposed at this facility. Accordingly, I direct that the issuance of the revised landfill permit shall, in addition to the increased waste acceptance limit, include this special condition that addresses the disposal of Marcellus Shale wastes.

NEWSNY Motions

On September 22, 2010, NEWSNY filed a motion for expedited review of, and appeal from, the issues ruling with respect to noise, or, in the alternative, an interim order from the Commissioner authorizing the landfill to move forward with operations at the increased waste acceptance level sought by the permit modification at issue while its appeal is pending.

With the resolution of the noise issue, as memorialized in the stipulation of settlement, NEWSNY's motion for expedited review of, and appeal from, the issues ruling with respect to noise is now moot. As for the alternative request contained in the motion, NEWSNY is seeking temporary approval of its proposed modification request prior to the completion of the Part 624 hearing process. Department staff opposes NEWSNY's request (see Department staff's letter dated November 3, 2010 [DEC staff response to the applicant appeal]). The Part 624 regulations do not contemplate granting an approval prior to the completion of the Part 624 hearing process. Accordingly, NEWSNY's request is denied.

By papers dated October 12, 2010, NEWSNY served a notice of motion and motion for expedited review and summary judgment "[d]ismissing and/or [d]enying [t]he appeal of [Residents]." The Part 624 regulations do not authorize or contemplate this type of motion at the interim appeals stage. Moreover, given the determination on this appeal, NEWSNY's motion is rendered academic. Accordingly, NEWSNY's motion is denied.

I note that NEWSNY did not file a reply to Residents' appeal, but set forth its arguments in opposition to Residents' appeal in its October 12, 2010 motion papers. To avoid any prejudice, I am treating NEWSNY's motion papers as its reply to Residents' appeal.

Residents' Appeal from the Exclusion of Certain Submittals

Residents appealed from the ALJ's determination dated June 3, 2010 that struck various of Residents' submissions relating to Marcellus Shale issues (Residents' Appeal, at 1).

By memorandum dated May 6, 2010, ALJ Buhrmaster allowed for certain additional submittals to be filed by Department staff and Residents. These included responses to the April radiological survey report on Marcellus shale drill cuttings prepared by CoPhysics (IC Exh 10), and further submissions regarding whether the use of radiation detectors may address Residents' concern about the disposal of Marcellus Shale drilling wastes. Department staff filed a response dated May 18, 2010.⁸ Residents submitted various documents under cover of letters dated May 18 and May 20, 2010, including (with respect to Marcellus Shale wastes):

- a four-page letter dated May 18, 2010, and a one-page letter dated May 20, 2010, from Residents' attorney;
- a consultant report dated May 19, 2010, by Marvin Resnikoff, Ph.D., of Radioactive Waste Management Associates;
- a consultant letter dated May 17, 2010, from Anthony R. Ingraffea, PH.D., P.E., consulting structural engineer;
- a consultant letter dated May 19, 2010 from Conrad Volz, DRPH, MPH; and
- a five page article from Scientific American entitled "Natural Gas Drilling Produces Radioactive Wastewater," authored by Abraham Lustgarten and ProPublica.

By letter dated May 21, 2010, NEWSNY requested that the ALJ strike a number of Residents' submissions on the ground that they were beyond the scope of what the ALJ authorized in his May

⁸ The ALJ also requested that NEWSNY provide information about the Marcellus Shale drill cuttings that have been received at the landfill. By letter dated May 18, 2010, NEWSNY filed information on the Marcellus Shale waste received at the landfill, the amount of drill cuttings received and the percentage of the landfill's waste stream attributable to drill cuttings. Subsequently, NEWSNY filed a letter dated June 1, 2010 providing additional information on drill cutting waste.

6, 2010 memorandum. By memorandum dated June 3, 2010, the ALJ struck a portion of the consultant report and letters.⁹

Department staff argues that the ALJ's ruling to strike the above-referenced documents should be upheld, and that Residents' appeal from the ALJ's May 6, 2010 determination be denied. Department staff maintains that the stricken material is "repetitive, irrelevant or clearly should have been provided earlier" (Department staff response to applicant appeal, November 3, 2010, at 1).

I have reviewed the documents in question and concur with the ALJ's determination to exclude portions of them from the issues conference record, based on the reasoning set forth in the ALJ's June 3, 2010 memorandum.

CONCLUSION

This matter shall be remanded to Department staff for issuance of a permit that incorporates the proposed modification to raise the maximum waste acceptance limit at the landfill from 120,000 to 180,000 tons per year, and establish an approved design capacity of 700 tons per day (or 54,600 tons per quarter, assuming a six day per week operation), and the special condition addressing the disposal of Marcellus Shale wastes that was circulated in this proceeding.

In addition, Department staff is directed to review whether additional or revised permit conditions, or revisions to the landfill's operating procedures, are necessary with respect to the questions relating to the radiation monitoring/detection system, landfill leachate management, and restrictions on disposal of drill cuttings in the onsite construction and demolition debris landfill, as set forth in this decision. Within thirty (30) days of Department staff's receipt of this decision, subject to any extension granted by my office, Department staff shall advise Chemung County and NEWSNY in writing whether any modifications to the permit and/or of any revisions to the landfill's operating procedures may be necessary. Department staff shall copy Residents and my office on this correspondence.

⁹ NEWSNY and Department staff were given an opportunity to respond to Residents' submissions that were not stricken, which they did by letters dated June 9, 2010 and June 30, 2010, respectively.

As previously noted, the application to modify the permit to increase the landfill's waste acceptance limit is not contingent upon staff's consideration of the aforementioned questions relating to landfill operating procedures. Department staff is directed to issue the permit with the increased waste acceptance limit, and the special condition on the disposal of Marcellus Shale wastes that was previously circulated by Department staff in this proceeding, following receipt of this decision.

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

By: _____/s/_____
Joseph J. Martens
Commissioner

Dated: August 4, 2011
Albany, New York