

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BOARD OF ENVIRONMENTAL PROTECTION

IN THE MATTER OF

STATE OF MAINE) APPLICATION FOR
BUREAU OF GENERAL SERVICES) MAINE HAZARDOUS WASTE, SEPTAGE
JUNIPER RIDGE LANDFILL EXPANSION) AND SOLID WASTE MANAGEMENT ACT, and
City of Old Town, Town of Alton) NATURAL RESOURCES PROTECTION ACT
Penobscot County, Maine) PERMITS and
#S-020700-WD-BI-N) WATER QUALITY CERTIFICATION
#L-024251-TG-C-N)

PRE-FILED TESTIMONY OF DENIS ST. PETER, P.E., PRESIDENT,
CES, INC.

INTRODUCTION.

My name is Denis St Peter. I am a licensed Professional Engineer in the state of Maine with 26 years of experience in solid waste projects. I am the President of CES, Inc. ("CES"). CES was retained by the City of Old Town ("City") to review the Juniper Ridge Landfill ("JRL") proposed expansion (the "Expansion") "Application for Maine Hazardous Waste, Septage and Solid Waste Management Act, and Natural Resources Protection Act Permits and Water Quality Certification" (the "Application"). The Application was filed by NEWSME and the Maine Bureau of General Services ("BGS," together, the "Applicants"). CES was asked to advise the City on the issues related to compliance with the technical standards outlined in the applicable statutes and regulations.

CITY OF OLD TOWN CONCERNS REGARDING THE APPLICATION.

The City of Old Town, Maine is the Host Community for the JRL. As the Host Community for JRL, the City is primarily concerned with the health, safety and welfare of its residents and any impacts -- positive or negative -- that the Expansion will have on them. Therefore, on behalf of the City, CES offers the following comments in the matter of the Application filed by the Applicants.

The Application proposes the addition of a total of 9.35 million cubic yards of solid waste disposal capacity to JRL, which will extend its useful life until approximately 2030. The Application was reviewed by a team of scientists, geologists, and engineers from CES. Our comments were summarized in our reports. As of the date of filing of this pre-filed testimony, we believe the Applicants have satisfactorily addressed the City's concerns and on one issue, we recommended that the City take additional steps to help ensure that the Applicants operate without harm to public health, safety, and welfare.

The City has hired the firm of CES to review the Application for compliance with State statutes and regulations, particularly with regard to the Natural Resources Protection Act, 38 MRS § 480-A thru § 480-JJ; Maine Hazardous Waste, Septage, and Solid Waste Management Act, 38 M.R.S. §§ 1301 - 1310-AA, as applicable; 38 M.R.S. §2101; and DEP Rules Chapters 300, 305, 310, 315, 335.400, 401 and 405 (traffic, odor, noise, air quality, vectors, litter, leachate management, stormwater, and groundwater), in order to protect the health, safety, and welfare of the City's residents. In general, CES finds the Applicants' Application and responses adequately meet or exceed the referenced State statute and regulations. Of particular note, the proposed Expansion design includes a leak detection and secondary liner system. This design will greatly enhance its performance in containing leachate and minimizing releases to the environment.

Our final two recommendations are related to the off-site monitoring, reporting, and evaluation of the hydrogen sulfide gas concentrations generated by the wastes disposed of at JRL. Due to the type of waste (i.e., CDD fines), the concentration of hydrogen sulfide within the landfill gas (LFG) is elevated. Hydrogen sulfide can be harmful to human health above certain concentrations as well as emit an offensive odor. The Applicants' proposed LFG collection and treatment system, as well as the monitoring equipment, appear to be robust and adequate to prevent human health hazards and nuisance odors as long as implemented, operated, and reported as proposed.

Our first recommendation is that the Applicants institute the use of action levels to coincide with off-site acute exposure and odor prevention. Reporting requirements would be instituted for concentrations exceeding 15 and 30 parts per billion (ppb) and the Old Town Code Enforcement Officer would be contacted if hydrogen sulfide concentrations exceed the 30 ppb level. The Applicants have agreed to incorporate these action levels and notification protocol into the Operations Manual Appendix K Odor Control Plan for JRL.

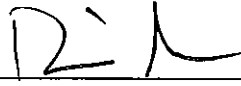
The other recommendation is based on concerns with the effects of possible chronic exposure to hydrogen sulfide. We have recommended to the City that they implement their own evaluation protocol, on an annual basis, by hiring a qualified consultant to evaluate the NEWSME/Casella hydrogen sulfide data for a chronic exposure (one-year duration) scenario. The evaluation would include (1) reviewing the hydrogen sulfide monitoring data; (2) performing a statistical analysis of the data; (3) establishing proper procedures for analyses of non-detect values; (4) performing a comparison to relevant acute and chronic exposure guidelines; and (5) providing conclusions and recommendations based on the evaluation. If the evaluation determines this data demonstrates the presence of hydrogen sulfide levels that exceed typical health-based guidance levels and so pose a potential health or safety risk to members of the public, including abutters, the City will report those findings to NEWSME/Casella and DEP.

Conclusion. In general, CES finds the Applicants' Application and responses adequately meet or exceed the referenced State statute and regulations. Of particular note, the proposed Expansion design includes a leak detection and secondary liner system. This design will greatly enhance its performance in containing leachate and minimizing releases to the environment. The Applicants' proposed LFG collection, treatment, and monitoring system appear to be robust and adequate to prevent human health hazards and nuisance odors as long as implemented, operated, and reported as proposed. However, due to the type of waste (i.e., CDD fines), the concentration

of hydrogen sulfide within the landfill gas (LFG) is elevated and on-going reporting and evaluations must be conducted by the Applicants, the City, and Maine DEP.

Thank you for your consideration.

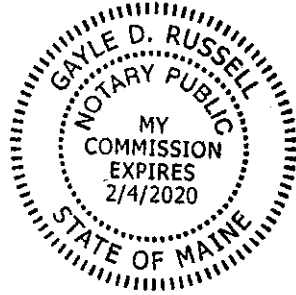
Dated: 7/28/2016

By: 
Denis St. Peter, P.E.
President, CES, Inc.

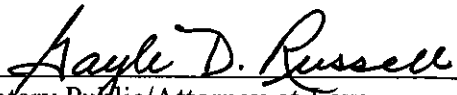
STATE OF MAINE
PENOBSCOT, ss.

7/28, 2016

Personally appeared the above-named Denis St. Peter and made oath as to the truth of the foregoing statements.



Before me,


Notary Public/Attorney-at-Law