

DEC. 10 1992

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 5217

Petition of Ryegate Wood Energy)
Company, Inc. for a certificate of)
public good, pursuant to 30 V.S.A.)
Section 248, for authority to)
construct and operate a 20-Megawatt)
wood-fired electric generating facility)
in Ryegate, Vermont AND Petition of)
Decker Energy International, Inc. for)
30-year levelized rates pursuant to PSB)
Rule 4.100 (PURPA) (on remand from the)
Supreme Court))

MEMORANDUM OF UNDERSTANDING

Now come Ryegate Associates (Ryegate), the Agency of Natural Resources (Agency) and the Vermont Department of Public Service ("DPS"), all parties to the above docket before the Public Service Board, and enter into this Memorandum of Understanding as of the date set forth below.

RECITALS

WHEREAS, Ryegate Associates is the owner of a wood-fired electric generating facility under construction in East Ryegate, Vermont, scheduled to begin commercial operation on November 1, 1992, and

WHEREAS, the Agency is statutorily charged with diverse responsibilities for the preservation and protection of Vermont's natural environment, and

WHEREAS, all parties acknowledge the importance of sound silvicultural practices for the preservation and enhancement of the state's forests, lakes, streams, wildlife habitat, natural areas, and aquatic habitat, and

WHEREAS, the parties expressly acknowledge the need to develop appropriate policies to facilitate environmental protection, and to maintain an open and constructive working relationship toward such goal,

NOW, THEREFORE, the parties have entered into this Memorandum of Understanding in order to memorialize the positive results of their mutual efforts to date, to communicate those results to the Public Service Board, and to mutually request that the terms and conditions of this Memorandum and its attachments be incorporated into the Board's official record to ensure their future enforceability.

TERMS

1. Ryegate agrees that it will at all times adhere to the terms and conditions of the harvesting policy filed herewith as appendix A for all wood procurement in Vermont.

2. In order to assist the Agency in meeting its obligations to monitor and enforce the harvesting policy, representatives of the Agency shall meet with representatives of Ryegate not less than twice annually, to discuss the adequacy and

effectiveness of the existing policy, as well as ways to improve either its terms or its enforcement.

3. In addition to the above, Ryegate agrees to make its staff forester, and such other personnel as may be reasonably required, available to meet with Agency representatives upon reasonable advance request.

4. With respect to out of state purchase of whole tree chips and roundwood, Ryegate expressly agrees that it will be its policy to accept only deliveries of chips and roundwood that have been harvested in accordance with the requirements of all statutes and regulations of the jurisdiction where the harvesting occurs.

5. In order to ensure compliance with paragraph 4 above, Ryegate agrees that it will, at its own expense, provide such training as may be necessary to ensure that its staff forester and other involved personnel understand the applicable statutes and regulations in each and every jurisdiction from which Ryegate purchases whole tree chips and/or roundwood. Should the Agency at any time wish for information regarding such laws and harvesting practices in other jurisdictions and/or compliance with such laws and practices, Ryegate agrees to promptly provide such information in written and/or oral form, and in such format as may be reasonably requested by the Agency.

6. Nothing in this Memorandum of Understanding shall be deemed to constitute a waiver by any party of any right which

that party may have to request modification, alteration or enforcement of this Memorandum or the Harvesting Policy. Prior to taking any formal regulatory action, however, the parties agree to meet informally to discuss and attempt to resolve any concerns which may have arisen.

AGENCY OF NATURAL RESOURCES

DATED:

12/1/92

BY

Cheryl Clark
Secretary

RYEGATE ASSOCIATES

DATED:

11-9-92

BY

Its

400 Albany

DEPARTMENT OF PUBLIC SERVICE

DATED:

11/10/92

BY

Its

Commission

APPROVED AS TO FORM:

Stephen Sease

Stephen Sease, Esq.
Attorney for Agency of Natural Resources

David J. Mullett
David J. Mullett, Esq.
Attorney for Ryegate Associates

Jeffrey C. ...
Attorney for Department of Public Service

RYEGATE ASSOCIATES
RYEGATE POWER STATION

Harvesting Policy for Whole Tree Chipping and Roundwood Operations in Vermont

It will be the policy of Ryegate Power Station to accept delivery of whole tree chips and roundwood only from harvesting operations in Vermont certified by a professional forester as meeting the criteria of "good forestry practice" as outlined below. Ryegate Associates (RA), foresters or their authorized agents will conduct periodic on-site inspections to insure compliance with the following practices to the satisfaction of RA and/or applicable state authorities.

Unresolved violation of these practices will result in the termination of chip and/or roundwood purchase from the offending producer.

1. The use of necessary and applicable erosion and sedimentation control practices will be required. Every harvesting contractor will become familiar with the publication **Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont**. Contractors will implement procedures outlined in the guide to the satisfaction of Ryegate Associates foresters and/or applicable state authorities.
2. Consideration for visual quality will be required.
 - a. All refuse will be removed from the landing/logging site prior to termination of the operation.
 - b. Appropriate techniques will be used adjacent to major hiking trails to protect the integrity of the trail and the hiking experience. Trail treadways will be kept clear of logging debris. Crossing of the trails by logging vehicles will be at right angles and kept to the minimum number necessary. Cutting within 50 feet of either side of major trails will be limited to the removal of high risk trees or removal of less than 30% of the basal area of existing trees greater than five (5) inches DBH, whichever is less.
 - c. Landings will be laid out so as to reduce adverse visual impact. Newly constructed landings along public highways will be screened by a strip of undisturbed vegetation at least 25 feet wide when such vegetation exists. Where open areas or abandoned landings are suitable for use as landings, they will be so used in spite of the lack of buffer strip, so as to reduce the amount of area cleared for such use.
3. Wildlife and fisheries habitat protection will be provided on harvesting operations associated with Ryegate Power Station.
 - a. Landowners will be made aware of any impacts to wildlife or fisheries relating to a proposed chip or roundwood harvest operation on their property.

- Limited scope
of review
- b. For all sites within Vermont from which wood fuel will be purchased by Ryegate Power Station, a Ryegate Associates forester will visit the site with the landowner and/or harvesting contractor and confer in developing a harvesting procedure which meets the forester's approval. In turn, the forester will develop a "Whole Tree Chip/Roundwood Harvest Notification" to be sent to the appropriate Vermont Department of Fish and Wildlife biologist. This notification will include: a map showing the location of the proposed operation and the location of all streams, rivers, lakes and ponds; information regarding the nature of the harvest (including type of cut and acreage); name of prospective contractor(s) and approximate dates during which the harvest will be conducted. The biologist will have fifteen days in which to respond to the RA forester with an approval or modification of the proposed operation. If the biologist determines that a modification of the harvest plan will be necessary in order to protect deer wintering areas, wetlands or the habitat of threatened or endangered species, such modifications will be included in the response to the RA forester within the fifteen day time period. No harvesting operation will begin before approval by the district wildlife biologist.
 - c. When landowner goals require silvicultural manipulation for wildlife management purposes, guidance may be sought from the Vermont Department of Fish and Wildlife or other qualified sources as well as the publication **Model Habitat Management Guidelines for Deer, Bear, Hare, Grouse, Turkey and Non-Game Wildlife** by the Vermont Department of Fish and Wildlife.
 - d. Protection of fisheries resources will be provided through the use of acceptable erosion and sedimentation control practices including the use of filter strips and protection of streamside shade. Harvesting contractors will implement applicable procedures outlined in the publication **Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont**. Additional measures will be implemented when so specified by RA foresters and/or applicable state authorities.

4. Archeological sites

- a. Ryegate Associates foresters will seek guidance in protecting significant archeological sites. Such guidance will be provided by the Vermont Division for Historic Preservation in the form of State-sponsored training to aid in on-the-ground identification of such sites and/or in the form of guidance from the Division of Historic Preservation in the determination of the likelihood of occurrence of significant archeological deposits within areas scheduled for harvesting. Ryegate Associates will require the modification or termination of harvesting areas thought to be archaeologically significant by the Division for Historic Preservation until such time as examination of the area has been completed. Ryegate Associates will also make the landowner aware of significant archeological sites on his property and aid him in adjusting his management decisions to protect such sites.

5. Timber Harvesting

- a. The development of management goals will involve consideration of:
- 1) The objectives of the landowner and alternatives available to him or her.
 - 2) The characteristics of the site and forest stand.
 - ✓ 3) The impacts on related resources (water quality, wildlife, scenic quality, recreation).
- b. The landowner or land manager and/or the harvesting contractor will confer with a professional forester representing Ryegate Associates in developing a harvesting procedure which meets the forester's approval. In all cases, harvesting will incorporate, to the extent reasonably possible, the protection of residual trees, minimization of waste and assurance of rapid and adequate regeneration. Every effort will be made to put harvested products to their most valuable use. In developing specific silvicultural techniques for meeting management goals, reliance will be placed on a combination of the forester's professional judgement and recognized silvicultural guides, including, but not limited to:
- 1) A Silvicultural Guide for Northern Hardwood Types in the Northeast by Leak, Solomon and DeBald.
 - 2) A Silvicultural Guide to White Pine in the Northeast by Lancaster and Leak.
 - 3) A Silvicultural Guide for Spruce-Fir in the Northeast by Frank and Bjorkhom.
 - 4) A Silvicultural Guide for Developing a Sugarbush by Lancaster, Walters, Laing and Foulds.
 - 5) Uneven-Aged Management of Northern Hardwoods in New England by Leak and Filip.
 - 6) Model Habitat Management Guidelines for Deer, Bear, Hare, Grouse, Turkey, Woodcock, and Non-Game Wildlife by Vermont Fish & Game Department.
 - 7) Manager's Handbook for Red Pine in the North Central States by North Central Forest Experiment Station, U.S.D.A. Forest Service.
 - 8) A Guide to Hardwood Timber Stand Improvement by U.S.D.A. Forest Service, Northeastern Area State and Private Forestry.
 - 9) Establishing Even-Age Northern Hardwood Regeneration by the Shelterwood Method - A Preliminary Guide by North Central Forest Experiment Station, U.S.D.A. Forest Service.

Gordon
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c. Specific types of cutting will include, but not limited to:

- 1) **The Selection System** - A silvicultural system involving the removal of trees of all sizes singly or in groups, at regular intervals resulting in an uneven-aged stand. This system involves a continuous forest cover and favors shade-tolerant species.
- 2) **The Seed Tree System** - A silvicultural system involving the retention of a very light stocking of selected trees after an initial cut. The role of the residual trees is to furnish seed for the next crop. The system results in an even-aged stand.
- 3) **The Shelterwood System** - A silvicultural system that involves the removal of the overstory in several stages. The partial overstory removal provides favorable conditions for the establishment of regeneration. The residual overstory is removed after the new stand is well-established. Shelterwood cutting also results in an even-aged stand.
- 4) **The Clearcutting System** - A silvicultural system which involves the harvesting in one cut of all trees larger than two (2) inches in diameter on an area and results in an even-aged stand. The size and configuration of the cut area is variable (even to as small as a fraction of an acre). Clearcutting is recognized to be useful in certain silvicultural and wildlife management situations. However, due to public sensitivity, only modified forms of clearcutting will be allowed by Ryegate Associates (narrow progressive strips and small blocks up to 25 acres in size). Land clearing operations involving land use conversions may employ larger clearcut openings. However, the objective in such cases is not future timber production. For land use conversion clearing operations, the landowner must submit a letter of intent to Ryegate Associates stating the number of acres to be cleared, name of harvesting contractor and the purpose of the clearing.
- 5) **Improvement Cut** - An improvement cut is an intermediate cut which can be prescribed by a forester as part of either the previously mentioned silvicultural system and can be carried out at various times during the rotation (in even-aged stands) or as part of the regeneration cut (in the Selection System). The objective of an improvement cut is the reduction of low-value and low-potential-value stand components through the removal of poorly formed stems and less valuable species.
- 6) **Thinning** - Thinning is an intermediate cut prescribed by a forester to reduce the level of tree stocking to a recommended level in order to concentrate tree growth on fewer but selected stems. Due to variability in forest stands as a result of site conditions and past treatment, it will often be necessary to incorporate more than one of the above-mentioned types of cutting within a single

woodlot. In addition, dependent upon the intensity of past high-grading, it will often be necessary to leave numerous poor quality trees uncut in order to maintain recommended stocking levels.

6. Harvesting contractors will be expected to abide by all applicable local, State and Federal regulations including but not limited to:
 - a. Occupational safety and insurance coverage.
 - b. Forest fire prevention and control.
 - c. Protection of property of others.
 - d. Water quality protection.
 - e. Harvesting and transportation of forest products.
7. Landowners will be made aware of the desirability of having a stumpage sale contract outlining the details of the harvest operation. If the landowner elects to utilize such a document, the harvesting contractor will be required to meet the terms of that contract in addition to the above harvesting policy.

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