

MSW Contingency Planning – Opportunities for Perham Facility Expansion

**David Traeger,
HDR Engineering, Inc.
8404 Indian Hills Dr. Omaha, Nebraska 68114**

**Matt Clark,
HDR Engineering, Inc.
6190 Golden Hills Dr., Minneapolis, Minnesota 55416**

**Robert Louiseau,
Perham City Manager
P.O. Box 130, Perham, Minnesota 56573**

ABSTRACT

The Perham Resource Recovery Facility (PRRF) in Perham, Minnesota receives and processes Municipal Solid Waste (MSW) from Otter Tail, Todd, Wadena and Stearns Counties. Combustion of the MSW provides the generation of steam for sale to two local industries. Under the terms of these steam sales agreements, the PRRF supplies the base load and peak steam required by these industries from a MSW boiler and/or a natural gas-fired auxiliary boiler.

The City of Fergus Falls, Minnesota until recently operated the Fergus Falls Waste-to-Energy (WTE) plant. This facility received municipal solid waste (MSW) from Otter Tail and Grant County. The facility generated steam for use in the State Hospital, however, the State of Minnesota has decided to shut down the hospital and will no longer need the steam. As a result, on February 28, 2006, the Fergus Falls plant shut down. HDR Engineering, Inc. (HDR) working with the City of Perham and the participating counties, conducted a study to consider cooperative disposal of the waste currently processed in Fergus Falls.

Three of the options considered included expansion of the PRRF. These options included salvaging of portions of the Fergus Falls WTE plant and providing pre-combustion processing of the waste to recover recyclables in order to maximize the Perham plant capacity. This paper describes the options and the conclusions of the investigations.

INTRODUCTION

The City of Fergus Falls until recently operated the 100 ton per day Fergus Falls WTE plant. This facility currently receives MSW from Otter Tail and Grant County. The facility combusts the MSW and produces steam for use in the State Hospital. The facility was recently retrofitted to meet revised Clean Air Act standards. However, the State is shutting down the hospital and will no longer need the steam. As a result, on February 28, 2006, the Fergus Falls plant stopped burning MSW.

This study was initiated to provide a contingency plan for disposal of the waste currently processed in Fergus Falls. Options to be considered are other processing facilities in the area and potential landfill sites. One potential source of disposal is the PRRF located in Perham on the western side of Otter Tail County.

The PRRF receives and processes approximately 105 tons per day of MSW from Ottertail, Todd, Wadena and Stearns Counties. The facility was recently retrofitted to meet environmental standards and was restarted. The plant capacity is currently operated at or very near capacity and would require expansion to allow for processing of the additional waste from Fergus Falls. The facility was designed with redundant grate capacity, but had insufficient boiler capacity to handle the additional waste from Fergus Falls.

The PRRF generates steam and sells it to two local industries, but is required to use natural gas-fired