SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 8-K

Current Report

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 28, 2009 (January 27, 2009)

Commission File Number Registrant, State of Incorporation, Address and Telephone Number

001-32206

I.R.S. Employer Identification Number

43-1916803

GREAT PLAINS ENERGY INCORPORATED

(A Missouri Corporation) 1201 Walnut Street Kansas City, Missouri 64106 (816) 556-2200

NOT APPLICABLE (Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- [] Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- [] Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- [] Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- [] Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers

Mark A. Ernst, a director of Great Plains Energy Incorporated ("Great Plains Energy"), notified Great Plains Energy on January 27, 2009, of his resignation as of that date from the Board of Directors, due to accepting the position as a Deputy Commissioner of the Internal Revenue Service.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

GREAT PLAINS ENERGY INCORPORATED

/s/ Terry Bassham Terry Bassham Executive Vice President- Finance & Strategic Development and Chief Financial Officer

Date: January 28, 2009