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Case No.: GO-2019-0356
GO-2019-0357

DIRECT TESTIMONY

OF

JOHN A. ROBINETT

Submitted on Behalf of the Office of the Public Counsel

**SPIRE MISSOURI INC.
SPIRE MISSOURI EAST SERVICE TERRITORY
SPIRE MISSOURI WEST SERVICE TERRITORY**

CASE NO. GO-2019-0356

CASE NO. GO-2019-0357

September 27, 2019

OPC Exhibit No. 200
Date 10-2-19 Reporter NT
File No. GO-2019-0356
GO-2019-0357

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Spire)
Missouri, Inc. to Change its Infrastructure)
System Replacement Surcharge in its Spire) Case No. GO-2019-0356
Missouri East Service Territory)

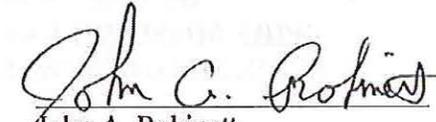
In the Matter of the Application of Spire)
Missouri, Inc. to Change its Infrastructure)
System Replacement Surcharge in its Spire) Case No. GO-2019-0357
Missouri West Service Territory)

AFFIDAVIT OF JOHN A. ROBINETT

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

John A. Robinett, of lawful age and being first duly sworn, deposes and states:

1. My name is John A. Robinett. I am a Utility Engineering Specialist for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my direct testimony.
3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.


John A. Robinett
Utility Engineering Specialist

Subscribed and sworn to me this 27th day of September 2019.



JERENE A. BUCKMAN
My Commission Expires
August 23, 2021
Cole County
Commission #13754037


Jerene A. Buckman
Notary Public

My Commission expires August 23, 2021.

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John A. Robinett
2019-09-27
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**DIRECT TESTIMONY
OF
JOHN A. ROBINETT
SPIRE MISSOURI EAST
SPIRE MISSOURI WEST**

CASE Nos. GO-2019-0356 and GO-2019-0357

1 **Q. What is your name and what is your business address?**

2 A. John A. Robinett, P.O. Box 2230, Jefferson City, Missouri 65102.

3 **Q. By whom are you employed and in what capacity?**

4 A. I am employed by the Missouri Office of the Public Counsel (“OPC”) as a Utility Engineering
5 Specialist.

6 **Q. Have you previously provided testimony before the Missouri Public Service
7 Commission?**

8 A. Yes. Please see Schedule JAR-D-1.

9 **Q. What is your work and educational background?**

10 A. A copy of my work and educational experience is attached to this testimony as Schedule JAR-
11 D-1.

12 **Q. What is the purpose of your direct testimony?**

13 A. The purpose of this direct testimony is to address Spire’s Infrastructure System Replacement
14 Surcharge (“ISRS”) applications in Case Nos. GO-2019-0356 and GO-2019-0357. In this
15 testimony I will address Spire’s lack of evidence to show the cast iron and non-cathodically
16 protected steel services it replaced as part of this ISRS request were worn out or in a
17 deteriorated condition. I will also discuss the replacement of cathodically protected steel
18 mains that Spire is seeking to pass through the ISRS. It is my opinion that these replacements
19 are improper expenses for recovery under an ISRS.

1 **Q. Does your testimony maintain that all of the costs that Spire seeks to recover in these**
2 **cases are not ISRS eligible?**

3 A. No. After reviewing Spire's applications and associated work papers, I have come to the
4 conclusion that, for purposes of this case, there is no reason for the Commission to find that
5 the joint encapsulation projects and relocations Spire performed are not ISRS eligible due to
6 Spire providing sufficient documentation to support the ISRS eligibility of these projects. This
7 includes, for example, the various letters Spire received from entities with the power of
8 eminent domain showing the need for relocations due to construction.

9 **ISRS Eligibility of Cathodically Protected Steel Replacements**

10 **Q. Is Spire replacing cathodically protected steel mains and seeking recovery of the cost of**
11 **those replacements in this ISRS applications?**

12 A. Yes. As Spire and the Commission's Gas Safety Department both acknowledge, Spire did
13 not have any unprotected steel mains remaining in either the Missouri East or Missouri
14 West systems prior to beginning the work that Spire is seeking ISRS recovery for in this
15 application. However, the work orders that Spire has provided show that they are claiming
16 costs related to the replacement of steel mains in both of its applications. Therefore, Spire
17 must be replacing protected steel mains and seeking recovery of the costs related to those
18 replacements in both of its ISRS applications.

19 **Q. Are you aware of any federal or Missouri state mandate to replace cathodically**
20 **protected steel mains in the manner that Spire is engaged in?**

1 A. No. I have reviewed 20 CSR 4240-40.030(15) as part of this case. However, this section
2 of the rule does not lay out or state a mandated replacement program for cathodically
3 protected steel mains.

4 I have also reviewed Spire West's (formerly MGE's) Safety Line Replacement Program
5 approved by the Commission in case number GO-2002-50. Paragraph 12 on page 8 of the
6 approved program discusses a cathodically protected steel replacement program designated
7 as the "5-5-3 program," which means that it triggers replacement of a minimum of 5 miles
8 of pipes per year if 5 leaks within 500 feet are reported over a three-year period. However,
9 this program does not apply to the vast majority of the replacements that Spire West is
10 performing. I know this for two different reasons. First, I searched the work orders that
11 Spire West provided and determined that out of the more than 300 work orders, only
12 twenty-one indicated that they were an attempt to fix leaks. The second reason I know that
13 Spire West is not replacing pipes pursuant to this 5-5-3 replacement program is because of
14 the number of replacements being made. Spire has reported only 429 total corrosion related
15 leaks for mains over the past three years.¹ Even if I give the company the greatest benefit
16 of the doubt by assuming that every single one of these leaks was part of a 5-5-3 trigger, it
17 still only results in less than 86 triggers of the 5-5-3 program for this year. If I further
18 assume that each 5-5-3 trigger was independently responsible for an entire work order, it
19 means that the 5-5-3 replacement mandate could, at best, only ever apply to 86 out of the
20 more than 300 work orders Spire West submitted in this ISRS application.

¹ Spire reported 93 corrosion related leaks for mains in 2018, 210 in 2017, and 126 in 2016. Schedule JAR-D-6

1 I also reviewed the pipe replacement program approved by the Commission for Spire East
2 in GO-91-275. This replacement program included no mandate for the replacement of
3 cathodically protected steel mains.

4 **Q. Is there any evidence to show that the cathodically protected steel mains and services**
5 **that Spire replaced and are seeking to recover costs for in these ISRS applications are**
6 **worn out or in a deteriorated condition?**

7 A. No. I am not aware of any evidence to show that the cathodically protected steel mains and
8 services that Spire replaced and are seeking ISRS recovery for are worn out or in a
9 deteriorated condition. It is important to remember that the whole point of cathodic
10 protection is to slow down the rate of degradation or corrosion that naturally occurs in
11 metal pipes, thus lengthening the useable life of the pipes. Cathodic protection can be done
12 in a number of different ways. One such way includes using a "sacrificial anode" which is
13 a piece of metal with a more negative electrode potential than the pipe that is being
14 protected. This sacrificial anode then wears out or deteriorates instead of the pipe that it is
15 attached to. This means that cathodically protected pipes should, all else being equal, wear
16 out or deteriorate at a much slower rate than non-cathodically protected steel pipes given
17 that the cathodically protected steel pipe should not begin to wear out until after the
18 cathodic protection has been exhausted. This fact is important when considering average
19 service lives, as I will discuss later in my testimony. For now, all that is necessary to
20 understand is that Spire has not offered any evidence at all to show that the cathodically
21 protected steel mains or services it replaced were worn out or in a deteriorated condition.

1 **ISRS Eligibility of cast iron mains and non-cathodically protected steel main and service line**
2 **replacements**

3 **Q. Are there any work order authorization sheets that cause OPC concern regarding the**
4 **eligibility of projects?**

5 A. Yes. I focused my analysis on the work orders provided for Spire West projects. I discovered
6 several work orders that raised significant concerns to me for a variety of reasons. The first is
7 800041, which is the first project from the June actuals attached as schedule JAR-D-2. This
8 work order claims to be ISRS eligible for cast iron main replacement; however, a review of
9 the retired assets indicate no cast iron being retired. In addition attached as Schedule JAR-D-
10 3, work orders 802173, 802217, 802175 fail to provide vintages of mains and services being
11 retired as part of the project. The same is true of work orders 802804, 802703, 802352,
12 802386, 802320, 802175, 802217, 802255, 801554, 801553, 802113, 802028, 801552,
13 801551, 801899, 800666, 801260, 800642, and 800348 from the July update also attached
14 as schedule JAR-D-3. Attached as Schedule JAR-D-4 is the only work order 800227 that
15 identifies graphitization corrosion as need for replacement. Finally, work order 800224
16 attached as Schedule JAR-D-5 has a budget description of replacement of cast iron main,
17 however, a review of the work order retirements paints an entirely different picture as the only
18 units being retired are coated steel mains.

19 **Q. Has Spire provided any evidence that the cast iron and non-cathodically protected steel**
20 **mains and services, which it replaced and for which it is seeking recovery in this petition,**
21 **are worn out or deteriorated?**

1 A. No. Spire's verified application includes a chart that lists every work order for which Spire is
2 seeking ISRS recovery and identifies what portion of the ISRS statute Spire is relying on to
3 demonstrate eligibility for each work order. The vast majority of these work orders cite to
4 section 393.1009(5)(a) RSMo, which allows ISRS recovery for "mains, valves, service lines,
5 regulator stations, vaults and other pipeline system components installed to comply with state
6 or federal safety requirements as replacements for existing facilities that have worn out or are
7 in deteriorated condition," as the basis for ISRS eligibility. However, Spire has failed to
8 provide any tangible evidence that any of the pipes replaced under the work orders that rely
9 on this section actually meet the definition of "worn out or in a deteriorated condition."

10 **Q. Has Spire provided any evidence of testing performed on replaced cast iron and non-**
11 **cathodically protected steel mains and services?**

12 A. No. In the past, I have sent Spire several data requests related to the subject of testing. Spire
13 has consistently stated that it does not perform any test to determine if the pipes it is replacing
14 are worn out or in a deteriorated condition. Example data requests and responses that I have
15 sent and received in previous cases are included in Schedule JAR-D-17. I do not have any
16 reason to believe that Spire has changed its position since these last cases and they certainly
17 did not include any evidence related to testing performed on the pipes they replaced in the
18 current applications.

19 **Q. Has Spire provided any evidence concerning leak history analysis or leak reporting**
20 **regarding the cast iron and non-cathodically protected steel mains and services it**
21 **replaced?**

1 A. My review of the Spire Missouri West work orders indicated twenty-one work orders that
2 were undertaken to repair some sort of leak. Further, there are leak statistics provided in the
3 annual reports Spire submits to the Federal Department of Transportation which are attached
4 in Schedule JAR-D-6. Additionally attached as schedule JAR-D-7 are all of the work orders
5 for Spire Missouri West that are in response to leaks.

6 **Q. Is there any reason that Spire should be performing testing or leak analysis on its lines?**

7 A. Yes. In preparing for this case, I reviewed Spire's Commission Approved Replacement Plans.
8 The case file numbers for the plans are GO-2002-50 for Spire Missouri West and GO-91-275
9 for Spire Missouri East. Both of these replacement plans included requirements for testing
10 that Spire is supposed to be performing.

11 **Q. What did the replacement plans that you reviewed say with regard to testing and leak
12 analysis/reporting requirements?**

13 A. The Spire West replacement plan (attached as Schedule JAR-D-8) filed July 30, 2001, in Case
14 No. GO-2002-50 at page 4 paragraph 10 B, discusses how Spire West's predecessor Missouri
15 Gas Energy was to collect a coupon (small sample of pipe) of every cast iron main break and
16 then analyze it for graphitization/corrosion.

17 The Spire East "Commission Approved Replacement Plan" (attached as Schedule JAR-D-9)
18 is found in Case No. GO-91-275 and was filed June 18, 1993. It discusses how Spire, (then
19 Laclede Gas Company) had implemented annual flame-ionization mobile leak survey of all
20 its cast iron mains with additional special surveys conducted when weather/ground conditions
21 warranted.

1 **Q. Are there any other considerations that need to be addressed regarding the eligibility of**
2 **recovery under an ISRS for cast iron and non-cathodically protected steel mains and**
3 **service replacements?**

4 A. Yes, Spire has previously attempted to rely on the age of the pipes being replaced as a basis
5 for claiming that they are worn out or deteriorated. However, age alone is insufficient to prove
6 that any given segment of pipe is worn out or deteriorated, let alone sufficient to support an
7 entire ISRS application.

8 **Q. Is the statement that age alone is insufficient to prove pipes are worn out or deteriorated**
9 **consistent with the position taken by the Commission Staff?**

10 A. Yes, Staff's Safety Engineering Manager, Ms. Kathleen McNelis, PE, produced a
11 memorandum that was filed in a Liberty Midstates Gas case (File No. GO-2019-0091) stating
12 that "age of . . . pipe does not meet the criteria used in Staff's evaluation because the age of
13 pipe is not necessarily a safety concern; provided that the pipe is in good condition." This
14 Staff recommendation/memorandum is attached as Schedule JAR-D-10. While that case dealt
15 specifically with PVC pipes, the logic of Ms. McNelis' conclusion should hold true with
16 absolutely any material.

17 **Q. Is there any other evidence that demonstrates why age alone is not a sufficient factor for**
18 **determining whether pipes are worn out or deteriorated?**

19 A. In the regulatory context, age of infrastructure is most commonly associated with the concept
20 of depreciation.

21 Depreciation as applied to depreciable utility plant, means the loss in service
22 value not restored by current maintenance, incurred in connection with the
23 consumption or prospective retirement of utility plant in the course of service

1 from causes which are known to be in current operation and against which the
2 utility is not protected by insurance. Among these causes to be given
3 consideration are wear and tear, decay, action of the elements, inadequacy,
4 obsolescence, changes in art, changes in demand, and requirements of public
5 authorities.²

6 The Public Utilities Depreciation Practices published by the National Association of
7 Regulatory Utility Commissioners, a publication on which utility depreciation experts
8 commonly rely, define the factors that depreciation accounts for on pages 11 through 18.
9 These pages are attached as Schedule JAR-D-11.

10 **Q. Are there any other depreciation resources that discuss the factors of depreciation?**

11 **A.** Yes. For example, those factors are discussed on Pages 70 through 73 of Depreciation
12 Systems written by Frank K. Wolf and W. Chester Fitch published by the Iowa State
13 University Press in 1994. Specifically, the authors discuss issues with the use of physical
14 condition as a measure of depreciation. The first issue is that wear and tear do not account for
15 all retirements. The second issue discussed is the difficulty of measuring the physical
16 condition. The paragraph ends with the following statement: "Though it is possible to measure
17 directly the wear of railroad track and the corrosion of cast iron pipe, easily measurable wear
18 is not characteristic of most industrial property." These specific pages are attached as
19 Schedule JAR-D-12.

20 Another depreciation resource that references depreciation factors is the Introduction
21 To Depreciation For Public Utilities and Other Industries published by Edison Electric

² Public Utility Depreciation Practices published by National Association of Regulatory Utility Commissioners, August 1996 page. 13. This definition is footnoted in previous document as sourced from Uniform System of Accounts for Class A and Class B Electric Utilities, 1958, rev., 1962.

1 Institute and American Gas Association in April 2013. The section I rely on in this text
2 discusses the average service life of assets. Attached as Schedule JAR-D-13 is page 59. It
3 defines service life of a unit of property as the number of years elapsing from the time a unit
4 of property is placed into service until it is removed or abandoned. Additionally, it defines
5 average service life of an account as the average of the lives of all such units within a plant
6 account.

7 **Q. Why is average service life important?**

8 A. The average service life is used for determining the depreciation rate for a particular account.
9 As a depreciation expert, I expect approximately half of assets to be retired before the average
10 service and half of them to exceed the average service life.

11 **Q. What are the average service lives for Spire East and West for Mains and Services?**

12 A. Attached as Schedule JAR-D-14 are the depreciation rates approved by the Commission in
13 Case Nos. GR-2017-0215 and GR-2017-0216. The average service lives for Spire West are
14 50 years for mains and 40 years for services. Spire West currently does not have different
15 average service lives by material type for its mains and services unlike Spire East. The average
16 service lives for Spire East for Cast iron main is 80 years, steel mains is 80 years, and plastic
17 mains is 70 years. Spire East's average service lives for steel, plastic, and copper services is
18 44 years.

19 **Q. Are there any important considerations to be made regarding these average service
20 lives?**

21 A. I can think of two important points to consider regarding these average service lives. The
22 first is the simple fact that there is a significant difference between the average service

1 life for pipes on the eastern side of the state and the average service life for pipes on the
2 western side of the state despite the pipes being made of the same material. This only serves
3 to illustrate my point that average service lives are not a good proxy for determining the
4 condition of pipe lines. The difference in average service lives between Spire Missouri East
5 and Missouri West are the result of historical data retention. Laclede (now Spire Missouri
6 East) has retained historical depreciation records for approximately the last 150 years.
7 Unlike Laclede, the MGE properties (now Spire Missouri West) experienced a significant
8 data loss. The reason for the data inadequacy is that when Southern Union Company
9 acquired Missouri Gas Energy in 1994 from WRI, WRI's plant retirement records were
10 not transferred to the possession of MGE. Due to the property records not being transferred
11 as part of the sale in 1994, neither the Company nor Staff have been able to perform a
12 statistically valid study that reflects the life of MGE's assets. So it is highly likely that, like
13 other natural gas utilities in this state, Spire Missouri West is utilizing surrogate
14 depreciation rates until the time when sufficient data exists to perform a statistically valid
15 study. This historical data loss is the reason for why the average service life for mains on
16 the west side of the state are twenty to thirty years less than mains on the east depending
17 on material.

18 The second thing that I would consider important is that, because neither Spire Missouri West
19 nor its predecessors differentiated between any pipe material for mains, the average useable
20 life of cathodically protected steel pipes should be longer than the 50 year average service life
21 approved by the Commission in Case No. GR-2017-0216. This is because cathodically

1 protected steel should last longer than cast iron and the average service life is an average of
2 both cast iron and steel service lives.

3 **Q. What conclusions do you draw from all of this information regarding depreciation and**
4 **average service lives in relation to Spire's applications?**

5 A. All of the resources cited clearly reinforce the statement that age alone is insufficient to
6 prove that any given segment of pipe is worn out or deteriorated. Therefore, the fact that a
7 particular segment of pipe may be older than the average service life for that type of
8 material does not mean that the pipe is worn out or deteriorated.

9 **Q. Does the retirement of plastic that was not worn out or deteriorated raise any other**
10 **concerns regarding depreciation and average service lives?**

11 A. Over time the retirements of these portions and segments of plastic mains and services that
12 are being retired that are not in a worn out or deteriorated condition will eventually affect the
13 useful life of the main or service of plastic when added up over time. In other words, Spire's
14 continued retirement of pipe that is not worn out or deteriorated will result in an inaccurate
15 measure of the useful life of that plant.

16 **Q. Is there anything that the Commission can do to remedy this potential issue from**
17 **occurring?**

18 A. Yes. For purposes of depreciation records, the Commission could order Spire to record all
19 plastic main and services retired as part of ISRS projects as outlier retirements which are
20 removed from the depreciation data when a future depreciation study is performed.

21 **Q. Did you pursue other discovery that would allow you to make a determination of the**
22 **condition of each type, vintage, and size of main or service being replaced?**

1 A. As part of this case I asked Spire to provide the inner diameter and outer diameter
2 measurements with maximum and minimum tolerances for all types and sizes of mains and
3 services used by Spire. Spire was unable to provide this data for any mains or services prior
4 to 2012.

5 **Q. Did you seek any additional information from Spire?**

6 A. Yes. OPC sent a data request inquiring for the average annual corrosion rate. Spire's response
7 was they do not track this information. Additionally, OPC requested the average age of Spire's
8 mains by type. This information was also not able to be provided to OPC. In fact, Spire stated
9 it would take weeks to create the queries to determine the average age of their infrastructure.

10 **Q. What was the purpose of seeking the dimensions of mains and services and the annual
11 corrosion rate of each type of main or service line?**

12 A. The purpose of my request was for OPC to have the ability to determine whether the mains
13 and services being retired were worn out or deteriorated by examining the maximum and
14 minimum wall thickness and then applying the average corrosion rate over the average age of
15 each type of mains or services in order to determine what wall thickness would remain and if
16 the remaining wall thickness provided a level of safety when pressurized. This information
17 was OPC's attempt to determine if mains and services being replaced were truly worn out or
18 in a deteriorated state, but Spire either doesn't know or is unwilling to provide this information
19 to help prove the actual or calculated state of the mains and services.

20 **Q. Does Spire's inability to provide the average age of its infrastructure cause other
21 concerns for OPC?**

1 A. Yes. Spire's inability to provide the average age of mains and services by type and size draws
2 major concerns for depreciation as it may be proof that Spire is not properly recording and
3 tracking plant in service assets according to the Federal Energy Regulatory Commission
4 ("FERC") Uniform System of Accounts ("USOA") and Commission rules.

5 **Q. Are there any other concerns raised by Spire's claim that the cast iron and non-**
6 **protected steel mains and services that it replaced were worn out or deteriorated?**

7 A. Yes. Based on past Spire ISRS cases, the applications Spire filed, and the direct testimony of
8 Craig R. Hoeflerlin, I began to believe that Spire was attempting to claim that all of the cast
9 iron and non-protected steel mains and services it had in use (including both those being
10 replaced in this ISRS application and those still in the ground) were worn out or in a
11 deteriorated state. To confirm my suspicion, I sent Spire several data requests asking if this
12 was truly its position. Spire provided responses to my data requests, included as Schedule
13 JAR-D-15, that confirmed that it was claiming that all cast iron mains and non-cathodically
14 protected steel mains and services were worn out or deteriorated. This raises significant
15 concerns for me, because I do not see how Spire could possibly be meeting its duty to provide
16 safe and adequate service if this is true.

17 **Q. Could you please elaborate?**

18 A. Certainly. Spire's application cites to its statutory duty to provide safe and adequate service
19 as one of the justifications for all of the replacements it performed. I understand this to mean
20 that Spire is claiming that it was required to replace the pipes identified in these ISRS
21 applications in order to continue providing safe and adequate services because of their
22 condition. But Spire is also claiming that the pipes it did not replace are in the same condition.

1 Therefore, under Spire's theory, it would also have needed to replace the pipes it did not
2 replace in order to meet its obligation to provide safe and adequate service. Because Spire did
3 not replace these other pipes, one could argue Spire has therefore failed to meet its statutory
4 duty to provide safe and adequate services.

5 **Q. Are you claiming that Spire is not providing safe and adequate services?**

6 A. No. I do not agree with Spire's claim that it needed to replace the pipes identified in these
7 ISRS applications in order to continue providing safe and adequate services because I have
8 seen no evidence to show that the pipes Spire replaced were worn out or in a deteriorated
9 condition. It is only under Spire's own theory that Spire has failed to provide safe and adequate
10 service. However, if the Commission were to agree with Spire that all of its cast iron and non-
11 cathodically protected steel pipes are worn out or deteriorated, I believe that it would be
12 incumbent upon the OPC to initiate a complaint proceeding as Spire would clearly not be
13 providing safe and adequate service under those conditions, especially given how they have
14 failed to prioritize cast iron main replacements in Spire West.

15 **Q. What do you mean?**

16 A. When I examined the annual reports that Spire West has provided to the United States
17 Department of Transportation, I noticed that between the 2015 and 2016 reports, Spire had
18 replaced 19.09 miles of cathodically protected steel mains and 4.62 miles of cast iron mains.
19 This meant that 80.51% of the mains replaced in the west between 2015 and 2016 were
20 cathodically protected steel mains and not cast iron mains. I similarly found 85.09% of the
21 mains replaced between 2016 and 2017 and 83.30% replaced between 2017 and 2018 were
22 cathodically protected steel and not cast iron mains. Given these findings, I must conclude

1 that Spire is not prioritizing cast iron main replacements in the west, despite these pipes being
2 much older.

3 **Q. If what you say is true about Spire's claim to not be providing safe and adequate service,
4 why hasn't the Commission's Gas Safety Department become involved?**

5 A. The OPC sent several data requests to the Commission's Gas Safety Department concerning
6 their understanding of Spire's gas distribution system. The Gas Safety Department responded
7 by informing us that they do not monitor the condition of Spire's gas distribution system to
8 see if it is worn out or deteriorated. The responses provided by the Commission's Gas Safety
9 Department are attached as Schedule JAR-D-16.

10 **ISRS eligibility of plastic replacements**

11 **Q. Does Spire's filed ISRS applications contain costs related to the replacement of plastic
12 mains or services?**

13 A. Yes. Spire in this case has filed two cases for each Spire Missouri West and Spire Missouri
14 East. One case eliminates the plastic consistent with the last two Commission orders. The
15 other includes all of the plastic that had been previously removed by Commission orders. This
16 second set of cases for Missouri East and Missouri West should be denied.

17 **Q. Are both Spire Missouri East and Spire Missouri West seeking recovery of the cost
18 of replacement of plastic mains and service lines that were not worn out or
19 deteriorated from its customers?**

20 A. Yes. In direct contradiction to the Missouri Court of Appeals Western Districts' ("Western
21 District") mandate, Spire is seeking recovery of replacement costs for plastic that was not

1 worn out or deteriorated as part of the ISRS filings for both its Missouri East and West
2 territories.

3 **Q. In your opinion, should Spire be allowed to recover any portion of the costs related to**
4 **the replacement of plastic mains and services that were not worn out or in a deteriorated**
5 **condition?**

6 A. No. Counsel has advised that the Missouri Courts have spoken on this point and spoken
7 clearly. Spire may not collect costs associated with the replacement of plastic components that
8 are not worn out or in a deteriorated condition. In the past, Spire has attempted to claim that
9 there are no costs associated with the replacement of plastic components; however, it is
10 important to acknowledge that there will always be a cost under any method that is used for
11 ineligible main replacement. For example, even if there is less pipe going into the ground, due
12 to a modification of Spire's gas distribution system brought on by a change in pressure, this
13 does not mean that it did not cost something to replace that portion of main. Similarly, just
14 because it is cheaper to replace the entire main rather than reuse an existing portion does not
15 mean there were no costs associated with the replacement of that portion of main.

16 **Q. Is it possible to calculate a specific disallowance for just the replacement of plastic mains**
17 **and services?**

18 A. In my opinion, the Commission should disallow cost recovery related to all the replacements
19 Spire claims as ISRS eligible based on Spire's failure to show that those replacements were
20 of infrastructure that was truly worn out or deteriorated. However, it is possible to calculate a
21 disallowance for just the replacement of plastic infrastructure using the same methodology

1 employed by Staff and ordered by the Commission in the GO-2018-0309 and GO-2018-0310
2 and GO-2019-0115 and GO-2019-0116 cases.

3 **Conclusion**

4 **Q. Can you please summarize your testimony for the Commission?**

5 A. The Commission should disallow recovery for the replacement of any cast iron, non-
6 cathodically protected steel, cathodically protected steel, and plastic mains or service lines
7 that are not worn out or in a deteriorated condition since Spire has been unable to prove
8 that that any of the mains and services that are being replaced are in a worn out or
9 deteriorated condition and has no federal or Missouri state mandate to replace either plastic
10 mains and service lines or cathodically protected mains and service lines. This is evidenced
11 by the data requests we have received over the past several ISRS cases.

12 **Q. Are you recommending that none of the items Spire has included in its application**
13 **are ISRS eligible?**

14 A. No. OPC is accepting, for purposes of this case, ISRS eligibility of any joint encapsulation
15 projects and relocations due, in part, to Spire providing documentation from entities with
16 the power of eminent domain that verify the need for such relocations. Also, I am not
17 recommending that Spire never be allowed to recover costs associated with the remaining
18 portions of these projects. I am simply stating that these costs are just not eligible for
19 expedited recovery through the ISRS. Spire may still file a general rate proceeding to
20 request that any capital additions that are not deemed eligible for recovery under the ISRS
21 statute be included in new rates.

1 | **Q. Does this conclude your direct testimony?**

2 | **A. Yes, it does.**

John A. Robinett

I am employed as a Utility Engineering Specialist for The Missouri Office of the Public Counsel (OPC). I began employment with OPC in August of 2016. In May of 2008, I graduated from the University of Missouri-Rolla (now Missouri University of Science and Technology) with a Bachelor of Science degree in Mechanical Engineering.

During my time as an undergraduate, I was employed as an engineering intern for the Missouri Department of Transportation (MoDOT) in their Central Laboratory located in Jefferson City, Missouri for three consecutive summers. During my time with MoDOT, I performed various qualification tests on materials for the Soil, Aggregate, and General Materials sections. A list of duties and tests performed are below:

- Compressive strength testing of 4" and 6" concrete cylinders and fracture analysis
- Graduations of soil, aggregate, and reflective glass beads
- Sample preparations of soil, aggregate, concrete, and steel
- Flat and elongated testing of aggregate
- Micro-deval and LA testing of aggregate
- Bend testing of welded wire and rebar
- Tensile testing of welded, braided cable, and rebar
- Hardness testing of fasteners (plain black and galvanized washers, nuts, and bolts)
- Proof loading and tensile testing of bolts
- Sample collection from active road constructions sites
- Set up and performed the initial testing on a new piece of equipment called a Linear Traverse / Image Analysis
- Wrote operators manual for the Linear Traverse / Image Analysis Machine
- Trained a fulltime employee on how to operate the machine prior to my return to school
- Assisted in batching concrete mixes for testing, mixing the concrete, slump cone testing, percent air testing, and specimen molding of cylinders and beams

Upon graduation, I accepted a position as an Engineer I in the Product Evaluation Group for Hughes Christensen Company, a division of Baker Hughes, Inc. (Baker), an oil field service company. During my employment with Baker, I performed failure analysis on oil field drill bits as well as composed findings reports which were forwarded to the field engineers in order for them to report to the company the conclusions of the failure causes.

I previously was employed as a Utility Engineering Specialist I, II, III for the Missouri Public Service Commission (Commission). My employment with the Commission spanned from April of 2010 to August of 2016. My duties involved analyzing depreciation rates and studies for utility companies and presenting expert testimony in rate cases before the Commission.

JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION

Listed below are the cases in which I have supplied testimony, comments, and/or depreciation rates accompanied by a signed affidavit.

Company	Case Number	Issue	Party
Ameren Missouri Gas Company	GR-2019-0077	Rebuttal Testimony Depreciation and General Plant Amortization	Office of the Public Counsel (OPC)
Spire Missouri East Spire Missouri West	GO-2019-0115 GO-2019-0116	Direct and Live Rebuttal Testimony ISRS	OPC
Empire District Electric Company	EA-2019-0010	Rebuttal, Surrebuttal, and Live Testimony CCN Application	OPC
Kansas City Power & Light Company Greater Missouri Operations	EU-2019-0197 EC-2019-0200	Affidavit for an Accounting Order for plant retirement	OPC
Ameren Missouri	EA-2018-0202	Surrebuttal Testimony Depreciation Life	OPC
Spire Missouri East Spire Missouri West	GO-2018-0309 GO-2018-0310	Direct and Live Rebuttal Testimony ISRS	OPC
Kansas City Power & Light Company	ER-2018-0145	Direct and Rebuttal, Surrebuttal, and True-up direct Testimony, Depreciation and O&M expense related to retired generation units, ONE CIS Allocation	OPC
Kansas City Power & Light Company Greater Missouri Operations	ER-2018-0146	Direct and Rebuttal, Surrebuttal, and True-up direct Testimony, Depreciation and O&M expense related to retired generation units, ONE CIS Allocation, Removal of Additional Amortization	OPC
Empire District Electric Company	EO-2018-0092	Rebuttal, Surrebuttal, Affidavit in Opposition, additional Affidavit and Live Testimony	OPC
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	GR-2018-0013	Rebuttal and Surrebuttal Testimony depreciation, general plant amortization	OPC
Laclede Gas Company Missouri Gas Energy Spire Missouri East Spire Missouri West	GO-2016-0332 GO-2016-0333 GO-2017-0201 GO-2017-0202 GR-2017-0215 GR-2017-0216	ISRS Over collection of depreciation expense and ROE based on Western District Opinion Docket No. WD80544	OPC
Gascony Water Company, Inc.	WR-2017-0343	Rebuttal, Surrebuttal, and Live Testimony rate base, depreciation NARUC USoA Class designation	OPC
Missouri American Water Company	WR-2017-0285	Direct, Rebuttal, Surrebuttal, and Live Testimony depreciation, ami, negative reserve, Lead Line	OPC

JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION

Company	Case Number	Issue	Party
Indian Hills Utility Operating Company, Inc.	WR-2017-0259	Direct, Rebuttal, Surrebuttal, and Live Testimony Rate Base (extension of electric service, leak repairs)	OPC
Laclede Gas Company Missouri Gas Energy	GR-2017-0215 GR-2017-0216	Direct, Rebuttal, Surrebuttal, True-up Rebuttal, and Live Testimony depreciation, retirement work in progress, combined heat and power, ISRS	OPC
Empire District Electric Company	EO-2018-0048	IRP Special issues	OPC
Kansas City Power & Light Company	EO-2018-0046	IRP Special issues	OPC
Kansas City Power & Light Company Greater Missouri Operations	EO-2018-0045	IRP Special issues	OPC
Kansas City Power & Light Company Greater Missouri Operations	EO-2017-0230	2017 IRP annual update comments	OPC
Empire District Electric Company	EO-2017-0065	Direct, Rebuttal, Surrebuttal, and Live Testimony FAC Prudence Review Heat Rate	OPC
Ameren Missouri	ER-2016-0179	Direct, Rebuttal, Testimony Heat Rate Testing & Depreciation	OPC
Kansas City Power & Light Company	ER-2016-0285	Direct, Rebuttal, Surrebuttal, and Live Testimony Heat Rate Testing & Depreciation	OPC
Empire District Electric Company Merger with Liberty	EM-2016-0213	Rebuttal Testimony	Missouri Public Service Commission (MOPSC)
Empire District Electric Company	ER-2016-0023	Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony	MOPSC
Hillcrest Utility Operating Company, Inc.	SR-2016-0065	Depreciation Review	MOPSC
Hillcrest Utility Operating Company, Inc.	WR-2016-0064	Depreciation Review	MOPSC
Missouri American Water Company	WR-2015-0301	Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony	MOPSC
Bilyeu Ridge Water Company, LLC Midland Water Company, Inc. Moore Bend Water Utility, LLC Riverfork Water Company Taney County Water, LLC Valley Woods Utility, LLC(Water) Valley Woods Utility, LLC(Sewer) Consolidated into Ozark International, Inc.	WR-2015-0192 WR-2015-0193 WR-2015-0194 WR-2015-0195 WR-2015-0196 WR-2015-0197 SR-2015-0198 Consolidated into WR-2015-0192	Depreciation Review *filed depreciation rates not accompanied by signed affidavit	MOPSC
I. H. Utilities, Inc. sale to Indian Hills Utility Operating Company, Inc.	WO-2016-0045	Depreciation Rate Adoption CCN	MOPSC

**JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION**

Company	Case Number	Issue	Party
Missouri American Water Company CCN City of Arnold	SA-2015-0150	Depreciation Rate Adoption CCN	MOPSC
Empire District Electric Company	ER-2014-0351	Direct, Rebuttal, and Surrebuttal Testimony	MOPSC
West 16th Street Sewer Company, W.P.C. Sewer Company, Village Water and Sewer Company, Inc. and Raccoon Creek Utility Operating Company, Inc.	SM-2015-0014	Depreciation Rate Adoption	MOPSC
Brandco Investments LLC and Hillcrest Utility Operating Company, Inc.	WO-2014-0340	Depreciation Rate Adoption, Rebuttal Testimony	MOPSC
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	GR-2014-0152	Direct, Rebuttal, Surrebuttal and Live Testimony	MOPSC
Summit Natural Gas of Missouri, Inc	GR-2014-0086	Depreciation Study, Direct and Rebuttal Testimony	MOPSC
P.C.B., Inc.	SR-2014-0068	Depreciation Review	MOPSC
M.P.B., Inc.	SR-2014-0067	Depreciation Review	MOPSC
Roy-L Utilities	WR-2013-0543	Depreciation Review	MOPSC
Roy-L Utilities	SR-2013-0544	Depreciation Review	MOPSC
Missouri Gas Energy Division of Laclede Gas Company	GR-2014-0007	Depreciation Study, Direct and Rebuttal Testimony	MOPSC
Central Rivers Wastewater Utility, Inc.	SA-2014-00005	Depreciation Rate Adoption	MOPSC
Empire District Electric Company	ER-2012-0345	Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony	MOPSC
Empire District Electric Company	WR-2012-0300	Depreciation Review	MOPSC
Laclede Gas Company	GO-2012-0363	Depreciation Authority Order Rebuttal, Surrebuttal and Live Testimony	MOPSC
Moore Bend Water Company, Inc. sale to Moore Bend Water Utility, LLC (Water)	WM-2012-0335	Depreciation Rate Adoption	MOPSC
Oakbrier Water Company, Inc.	WR-2012-0267	Depreciation Review	MOPSC
Lakeland Heights Water Co., Inc.	WR-2012-0266	Depreciation Review	MOPSC
R.D. Sewer Co., L.L.C.	SR-2012-0263	Depreciation Review	MOPSC
Canyon Treatment Facility, LLC	SA-2010-0219	Depreciation Rate Adoption- CCN	MOPSC
Taney County Water, LLC	WR-2012-0163	Depreciation Review	MOPSC
Sale of Saddlebrooke Water and Sewer Infrastructure, LLC to Missouri American Water Company (Sewer)	SA-2012-0067	Rebuttal Testimony	MOPSC
Sale of Saddlebrooke Water and Sewer Infrastructure, LLC to Missouri American Water Company (Water)	WA-2012-0066	Rebuttal Testimony	MOPSC
Midland Water Company, Inc.	WR-2012-0031	Depreciation Review	MOPSC

**JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION**

Company	Case Number	Issue	Party
Sale of KMB Utility Corporation to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Sewer)	SO-2011-0351	Depreciation Rate Adoption	MOPSC
Sale of KMB Utility Corporation to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Water)	WO-2011-0350	Depreciation Rate Adoption	MOPSC
Sale of Noel Water Company, Inc. to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Water)	WO-2011-0328	Depreciation Rate Adoption	MOPSC
Sale of Taney County Utilities Corporation to Taney County Water, LLC (Water)	WM-2011-0143	Depreciation Rate Adoption	MOPSC
Empire District Electric Company	ER-2011-0004	Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony	MOPSC
Rex Deffenderfer Enterprises, Inc.	WR-2011-0056	Depreciation Review	MOPSC
Tri-States Utility, Inc	WR-2011-0037	Depreciation Review	MOPSC
Southern Missouri Gas Company, L.P.	GE-2011-0096	Depreciation Study Waiver	MOPSC
Southern Missouri Gas Company, L.P.	GR-2010-0347	Depreciation Review	MOPSC
KMB Utility Corporation (Sewer)	SR-2010-0346	Depreciation Review	MOPSC
KMB Utility Corporation (Water)	WR-2010-0345	Depreciation Review	MOPSC
Middlefork Water Company	WR-2010-0309	Depreciation Review	MOPSC

Work Order Authorization Information

Header Detail	
Work Order: 800041 Work Order Title: Liberty Header - Phase 4 IUI Wo Type Description: WO-Replacement Mains & Svcs MGE Work Order Group: Current Revision: 1 Funding Project: F0599 Funding Project Desc: Main Replacement - ISRS (N) Eligible for AFUDC: yes Eligible for CPI: yes Reason Code: Strategic	Company: Spire Missouri Inc. Business Segment: Missouri West Functional Class: Distribution Plant Department Code: 20648 Department Description: Construction & Maintenance - Region 2A - Unto Budget Description: Replace cast iron main - CPI / prio Est. Annual Revenue: Reimbursement Type: None Retirement Type:
WO Description: Install 1450 ft of 4 in and 355 ft of 2 in PL IP main on E Mill St and W Liberty Dr. Abandon 58 ft of 4 in PL, 255 ft of 2 in Steel, 9 ft of 4 in Steel, 760 ft of 5 in Steel, and 609 ft of 6 in Steel main at the same location.	
Major Location: 1207-Liberty Asset Location: 1207-020001 CLAY CTY/LIBERTY	Status: posted to CPR
Estimated Start Date: Apr 08, 2016 Estimated Completion Date: Aug 01, 2016 Estimated In-Service Date: Aug 01, 2016 Notes: Total Service Estimate: 20 Service Tie-Overs. Main is being installed as part of the FY 2016 Bare Steel Replacement Program.	

Reason for Work (Justification)
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Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	4/13/2016
Engineering Review-Dist 5	Hoeflerlin, Craig	\$0	4/13/2016
VP Field Operations-MGE	Hampton, Joe	\$500,000	4/13/2016

***** Unit Estimate *****					
Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$4,760.49	\$4,760.49	\$0.00	\$0.00
376300-Mains - Plastic	\$112,370.75	\$451.51	\$112,822.26	\$0.00	\$0.00
Total Estimated Costs:	\$112,370.75	\$5,212.00	\$117,582.75	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addltn Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
1207-020001 CLAY CTY/LIBERTY						
376300-Mains - Plastic						
Mains-Plastic 2"						
Contractor Work	\$10,651.96	\$0.00	0	0	0	0
Overheads Capitalized - General	\$2,295.36	\$0.00	0	0	0	0
Stores	\$824.83	\$0.00	355	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$5,224.64	\$0.00	0	0	0	0
Contractor Work	\$60,313.07	\$360.92	0	0	0	0
Department Clearings	\$3,134.78	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$3,239.28	\$0.00	0	0	0	0
Overheads Capitalized - General	\$15,849.68	\$75.25	0	0	0	0
Payroll Taxes	\$522.46	\$0.00	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	58	0	0
Stores	\$10,314.69	\$15.34	1450	0	0	0
SubTotal Utility Account:	\$112,370.75	\$451.51	1,805.00	58.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 2"						
Overheads Capitalized - General	\$0.00	\$1.66	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	255	0	0
Stores	\$0.00	\$8.28	0	0	0	0
Mains-Steel 4"						
Contractor Work	\$0.00	\$1,139.68	0	0	0	0
Overheads Capitalized - General	\$0.00	\$245.94	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	0	0	0
Stores	\$0.00	\$90.03	0	0	0	0
Mains-Steel 5"						
Overheads Capitalized - General	\$0.00	\$14.24	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	760	0	0
Stores	\$0.00	\$71.20	0	0	0	0
Mains-Steel 6"						
Contractor Work	\$0.00	\$1,709.52	0	0	0	0
Overheads Capitalized - General	\$0.00	\$531.58	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	609	0	0
Stores	\$0.00	\$948.36	0	0	0	0
SubTotal Utility Account:	\$0.00	\$4,760.49	0.00	1,633.00	0.00	0.00
SubTotal Location:	\$112,370.75	\$5,212.00	1,805.00	1,691.00	0.00	0.00
Total Unit Estimate:	\$112,370.75	\$5,212.00	1,805	1,691	0	0

***** Class Codes *****
Work Order Authorization Information

Class Code	Value
cap_expense	capital
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** As-Built *****

Asset Location
 Utility Account
 Exp Type

Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
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Used in Utilization:

1207-020001 CLAY CTY/LIBERTY
 376100-Mains - Steel

Retirement

Contract Payroll	Mains-Steel 6"		\$64.82	0
Contract Payroll	Mains-Steel 5"		\$64.82	0
Contract Payroll	Mains-Steel 2"		\$64.82	0
Contract Payroll	Mains-Steel 4"		\$64.82	0
Contractor Work	Mains-Steel 2"		\$2,163.68	0
Contractor Work	Mains-Steel 6"		\$3,081.92	0
Contractor Work	Mains-Steel 5"		\$1,283.00	0
Contractor Work	Mains-Steel 4"		\$3,562.36	0
Department Clearings	Mains-Steel 5"		\$56.07	0
Department Clearings	Mains-Steel 2"		\$56.07	0
Department Clearings	Mains-Steel 6"		\$56.07	0
Department Clearings	Mains-Steel 4"		\$56.07	0
Mechanical Equipment	Mains-Steel 2"		\$13.40	0
Mechanical Equipment	Mains-Steel 4"		\$13.40	0
Mechanical Equipment	Mains-Steel 5"		\$13.40	0
Mechanical Equipment	Mains-Steel 6"		\$13.40	0
Overheads Capitalized - Benefits	Mains-Steel 5"		\$36.23	0
Overheads Capitalized - Benefits	Mains-Steel 2"		\$36.23	0
Overheads Capitalized - Benefits	Mains-Steel 4"		\$36.23	0
Overheads Capitalized - Benefits	Mains-Steel 6"		\$36.23	0
Overheads Capitalized - General	Mains-Steel 6"		\$1,395.03	0
Overheads Capitalized - General	Mains-Steel 4"		\$1,601.04	0
Overheads Capitalized - General	Mains-Steel 5"		\$555.12	0
Overheads Capitalized - General	Mains-Steel 2"		\$999.32	0
Payroll Taxes	Mains-Steel 5"		\$9.85	0
Payroll Taxes	Mains-Steel 2"		\$9.85	0
Payroll Taxes	Mains-Steel 6"		\$9.85	0
Payroll Taxes	Mains-Steel 4"		\$9.85	0
Retirement Value	Mains-Steel 4"		\$817.39	181
Retirement Value	Mains-Steel 6"		\$2,161.36	604
Retirement Value	Mains-Steel 4"		\$1,358.36	8
Retirement Value	Mains-Steel 5"		\$275.10	777
Retirement Value	Mains-Steel 2"		\$257.55	255

Work Order Authorization Information

***** As-Built *****

Asset Location	Utility Account	Exp Type	Est Charge Type	Retirement Unit	Job task	Dollars	Quantity	
Used in Utilization:								
1207-020001 CLAY CTY/LIBERTY								
376100-Mains - Steel								
Retirement								
				Mains-Steel 4"		\$181.64	0	
				Mains-Steel 6"		\$177.34	0	
				Mains-Steel 2"		\$164.50	0	
						Retirement Total:	\$20,756.19	1,825
376300-Mains - Plastic								
Addition								
				Mains-Plastic 2"		\$324.10	0	
				Mains-Plastic 4"		\$1,296.40	0	
				Mains-Plastic 4"		\$78,832.38	0	
				Mains-Plastic 2"		\$15,184.02	0	
				Mains-Plastic 2"		\$280.35	0	
				Mains-Plastic 4"		\$1,121.39	0	
				Mains-Plastic 4"		\$268.00	0	
				Mains-Plastic 2"		\$67.00	0	
				Mains-Plastic 4"		\$724.69	0	
				Mains-Plastic 2"		\$181.17	0	
				Mains-Plastic 4"		\$37,127.48	0	
				Mains-Plastic 2"		\$6,934.75	0	
				Mains-Plastic 4"		\$196.87	0	
				Mains-Plastic 4"		\$197.05	0	
				Mains-Plastic 2"		\$49.26	0	
				Mains-Plastic 4"		\$8,526.39	1,520	
				Mains-Plastic 2"		\$1,017.24	629	
						Addition Total:	\$152,328.54	2,149
Retirement								
				Mains-Plastic 2"		\$64.82	0	
				Mains-Plastic 6"		\$64.82	0	
				Mains-Plastic 4"		\$64.82	0	
				Mains-Plastic 6"		\$1,824.38	0	
				Mains-Plastic 2"		\$1,283.00	0	
				Mains-Plastic 4"		\$1,643.92	0	
				Mains-Plastic 6"		\$56.07	0	
				Mains-Plastic 2"		\$56.07	0	
				Mains-Plastic 4"		\$56.07	0	
				Mains-Plastic 6"		\$13.40	0	
				Mains-Plastic 4"		\$13.40	0	
				Mains-Plastic 2"		\$13.40	0	
				Mains-Plastic 6"		\$36.23	0	
				Mains-Plastic 4"		\$36.23	0	
				Mains-Plastic 2"		\$36.23	0	
				Mains-Plastic 6"		\$793.24	0	
				Mains-Plastic 2"		\$555.12	0	
				Mains-Plastic 4"		\$708.51	0	
				Mains-Plastic 4"		\$9.85	0	

Work Order Authorization Information

***** As-Built *****

Asset Location

Utility Account

Exp Type

Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
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Used In Utilization:

1207-020001 CLAY CTY/LIBERTY

376300-Mains - Plastic

Retirement

Payroll Taxes	Mains-Plastic 2"		\$9.85	0
Payroll Taxes	Mains-Plastic 6"		\$9.85	0
Retirement Value	Mains-Plastic 2"		\$1,548.11	200
Retirement Value	Mains-Plastic 2"		\$576.93	128
Retirement Value	Mains-Plastic 4"		\$436.32	38
Retirement Value	Mains-Plastic 4"		\$1,053.19	46
Retirement Value	Mains-Plastic 6"		\$2,958.48	92
Stores	Mains-Plastic 6"		\$18.90	0

Retirement Total: \$13,941.21 504

380100-Services - Steel

Retirement

Contractor Work	Services-Steel		\$40.54	0
Overheads Capitalized - General	Services-Steel		\$17.23	0
Retirement Value	Services-Steel		\$14.48	13

Retirement Total: \$72.25 13

380200-Services - Plastic & Copper

Addition

Contract Payroll	Services-Plastic		\$324.10	0
Contractor Work	Services-Plastic		\$10,030.16	0
Department Clearings	Services-Plastic		\$280.35	0
Mechanical Equipment	Services-Plastic		\$67.00	0
Overheads Capitalized - Benefits	Services-Plastic		\$181.17	0
Overheads Capitalized - General	Services-Plastic		\$4,901.85	0
Payroll Taxes	Services-Plastic		\$49.26	0
Stores	Services-Plastic		\$1,387.80	808

Addition Total: \$17,221.69 808

Retirement

Contractor Work	Services-Plastic		\$40.54	0
Overheads Capitalized - General	Services-Plastic		\$17.23	0
Retirement Value	Services-Plastic		\$375.42	13
Retirement Value	Services-Plastic		\$97.25	13
Retirement Value	Services-Plastic		\$269.28	16
Retirement Value	Services-Plastic		\$609.80	118

Retirement Total: \$1,409.52 160

Location Total:	<u>Addition Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>
	\$169,550.23	2,957	\$36,179.17	2,502

Used In Utilization:	<u>Addition Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>
	\$169,550.23	2,957	\$36,179.17	2,502

Unit Estimate Total:	<u>Addition Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>
	\$169,550.23	2,957	\$36,179.17	2,502

Work Order Authorization Information

***** Work Order Retirements *****				
Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit				
Asset Description		Vintage	Activity Code	Retire Qty Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
1207-020001 CLAY CTY/LIBERTY				
376100-Mains - Steel				
Mains-Steel 2"				
OCR		1956	URET	255 \$257.55
Mains-Steel 4"				
OCR		1965	URET	181 \$817.39
OCR		1995	URET	8 \$1,358.36
Mains-Steel 5"				
OCR		1930	URET	777 \$275.10
Mains-Steel 6"				
OCR		1953	URET	604 \$2,161.36
		Utility Account Total:		1,826 \$4,869.76
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		1981	URET	128 \$576.93
OCR		1982	URET	200 \$1,548.11
Mains-Plastic 4"				
OCR		1977	URET	46 \$1,053.19
OCR		1982	URET	38 \$436.32
Mains-Plastic 6"				
OCR		1993	URET	92 \$2,958.48
		Utility Account Total:		504 \$6,573.03
380100-Services - Steel				
Services-Steel				
OCR		1959	URET	13 \$14.48
		Utility Account Total:		13 \$14.48
380200-Services - Plastic & Copper				
Services-Plastic				
OCR		1986	URET	16 \$269.28
OCR		1989	URET	13 \$97.25
OCR		1993	URET	118 \$609.80
OCR		2016	URET	13 \$375.42
		Utility Account Total:		160 \$1,351.75
		Location Total:		2,502 \$12,809.02
		GL Account Total:		2,502 \$12,809.02
		Posted Retirements:		2,502 \$12,809.02
		Work Order Total:		2,502 \$12,809.02

Work Order Authorization Information

Header Detail

<p>Work Order: 802173</p> <p>Work Order Title: Repl 5750F 2-4-8-12P KC Rt48 Header</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0599</p> <p>Funding Project Desc: Main Replacement - ISRS (N)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 45 Ft of 2" PL IP Main, 345 Ft of 4" PL IP Main, 5195 Ft of 8" PL IP Main, and 165 Ft of 12" PL IP Main on E Linwood Blvd, Prospect Ave, Benton Blvd, Indiana Ave, and Cleveland Avenue.</p> <p>Major Location: 0401-KC/MO - Central</p> <p>Asset Location: 0401-043050 JACKSON CTY/KC</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20648</p> <p>Department Description: Construction & Maintenance - Region 2A - Unio</p> <p>Budget Description: Replace cast iron main - CPI / prio</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
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Estimated Start Date: Sep 03, 2018 **Estimated Completion Date:** Oct 22, 2018 **Estimated In-Service Date:** Oct 22, 2018

Notes: Abandon 4 Ft of 4" PL LP Main on Park Ave and S Benton Ave. Upgrade 749 Ft of 4" PL Main on Park Ave and S Benton Ave. Service upgrades = 11, service abandons = 1. The installation of this header main will allow us to abandon cast iron mains in subsequent grid phases.

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	7/25/2018
Engineering Review-Dist	Hoferlin, Craig	\$0	8/1/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	8/2/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376300-Mains - Plastic	\$505,163.14	\$4,298.65	\$509,461.79	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$0.00	\$905.76	\$905.76	\$0.00	\$0.00
Total Estimated Costs:	\$505,163.14	\$5,204.41	\$510,367.55	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC						
376300-Mains - Plastic						
Mains-Plastic 12"						
Contract Payroll	\$97.80	\$0.00	0	0	0	0
Contractor Work	\$13,504.79	\$0.00	0	0	0	0
Department Clearings	\$84.60	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$54.67	\$0.00	0	0	0	0
Overheads Capitalized - General	\$10,757.35	\$0.00	0	0	0	0
Payroll Taxes	\$14.87	\$0.00	0	0	0	0
Stores	\$11,791.89	\$0.00	165	0	0	0
Mains-Plastic 2"						
Contract Payroll	\$32.60	\$0.00	0	0	0	0
Contractor Work	\$727.41	\$0.00	0	0	0	0
Department Clearings	\$28.20	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$18.22	\$0.00	0	0	0	0
Overheads Capitalized - General	\$664.37	\$0.00	0	0	0	0
Payroll Taxes	\$4.96	\$0.00	0	0	0	0
Stores	\$830.91	\$0.00	45	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$364.66	\$619.40	0	0	0	0
Contractor Work	\$7,826.54	\$1,837.12	0	0	0	0
Department Clearings	\$315.43	\$535.78	0	0	0	0
Overheads Capitalized - Benefits	\$203.84	\$346.24	0	0	0	0
Overheads Capitalized - General	\$4,245.10	\$834.00	0	0	0	0
Payroll Taxes	\$55.43	\$94.15	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	4	0	0
Stores	\$2,107.01	\$31.96	345	0	0	0
Mains-Plastic 8"						
Contract Payroll	\$2,184.20	\$0.00	0	0	0	0
Contractor Work	\$250,751.71	\$0.00	0	0	0	0
Department Clearings	\$1,889.33	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$1,220.97	\$0.00	0	0	0	0
Overheads Capitalized - General	\$133,057.78	\$0.00	0	0	0	0
Payroll Taxes	\$332.00	\$0.00	0	0	0	0
Stores	\$61,996.50	\$0.00	5195	0	0	0
SubTotal Utility Account:	\$505,163.14	\$4,298.65	5,750.00	4.00	0.00	0.00
380200-Services - Plastic & Copper						
Services-Plastic						
Contractor Work	\$0.00	\$634.32	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location

Utility Account

Retirement Unit

Est. Chg Type

Addition Dollars

Retirement Dollars

Add Qty

Retire Qty

Add Hrs

Retire Hrs

0401-043050 JACKSON CTY/KC

380200-Services - Plastic & Copper

Services-Plastic

Overheads Capitalized - General

\$0.00

\$270.14

0

0

0

0

Stores

\$0.00

\$1.30

0

0

0

0

SubTotal Utility Account:

\$0.00

\$905.76

0.00

0.00

0.00

0.00

SubTotal Location:

\$505,163.14

\$5,204.41

5,750.00

4.00

0.00

0.00

Total Unit Estimate:

\$505,163.14

\$5,204.41

5,750

4

0

0

***** Class Codes *****

Class Code

Value

cap_expense

capital

ISRS Reason

01 - Cast Iron Strategic Replacement

isrs_recov

yes

ohbenefits

yes

ohgen_supv

yes

prod_nonprod

prod

Project Classification

both

***** As-Built *****

Asset Location

Utility Account

Exp Type

Est Charge Type

Retirement Unit

Job task

Dollars

Quantity

Available for Unitization:

0401-043050 JACKSON CTY/KC

376300-Mains - Plastic

Addition

Contract Payroll

Mains-Plastic 12"

\$2,718.52

0

Contract Payroll

Mains-Plastic 4"

\$3,577.00

0

Contract Payroll

Mains-Plastic 8"

\$2,718.52

0

Contract Payroll

Mains-Plastic 2"

\$2,718.52

0

Contractor Work

Mains-Plastic 8"

\$367,592.38

0

Contractor Work

Mains-Plastic 12"

\$105,098.42

0

Contractor Work

Mains-Plastic 2"

\$68,784.54

0

Contractor Work

Mains-Plastic 4"

\$133,925.17

0

Department Clearings

Mains-Plastic 12"

\$3,996.22

0

Department Clearings

Mains-Plastic 8"

\$3,996.22

0

Department Clearings

Mains-Plastic 4"

\$5,258.19

0

Department Clearings

Mains-Plastic 2"

\$3,996.22

0

Work Order Authorization Information

***** As-Built *****

Asset Location

Utility Account

Exp Type

Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
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Available for Unitization:

0401-043050 JACKSON CTY/KC

376300-Mains - Plastic

Addition

Overheads Capitalized - Benefits	Mains-Plastic 4"		\$3,147.76	0
Overheads Capitalized - Benefits	Mains-Plastic 12"		\$2,392.30	0
Overheads Capitalized - Benefits	Mains-Plastic 8"		\$2,392.30	0
Overheads Capitalized - Benefits	Mains-Plastic 2"		\$2,392.30	0
Overheads Capitalized - General	Mains-Plastic 4"		\$83,290.98	0
Overheads Capitalized - General	Mains-Plastic 8"		\$269,401.77	0
Overheads Capitalized - General	Mains-Plastic 2"		\$42,511.87	0
Overheads Capitalized - General	Mains-Plastic 12"		\$70,266.46	0
Payroll Taxes	Mains-Plastic 4"		\$543.70	0
Payroll Taxes	Mains-Plastic 12"		\$413.22	0
Payroll Taxes	Mains-Plastic 8"		\$413.22	0
Payroll Taxes	Mains-Plastic 2"		\$413.22	0
Stores	Mains-Plastic 4"		\$2,072.07	310
Stores	Mains-Plastic 8"		\$73,635.41	5,230
Stores	Mains-Plastic 2"		\$492.59	120
Stores	Mains-Plastic 12"		\$9,678.03	152

Addition Total:			\$1,267,837.12	5,812
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Retirement

Contract Payroll	Mains-Plastic 4"		\$35.77	0
Contractor Work	Mains-Plastic 4"		\$7,303.84	0
Department Clearings	Mains-Plastic 4"		\$52.58	0
Overheads Capitalized - Benefits	Mains-Plastic 4"		\$31.48	0
Overheads Capitalized - General	Mains-Plastic 4"		\$4,458.67	0
Payroll Taxes	Mains-Plastic 4"		\$5.44	0
Retirement Value	Mains-Plastic 4"		\$1,681.42	5

Retirement Total:			\$13,569.20	5
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380200-Services - Plastic & Copper

Retirement

Contractor Work	Services-Plastic		\$471.56	0
Overheads Capitalized - General	Services-Plastic		\$288.46	0
Stores	Services-Plastic		\$1.33	0

Retirement Total:			\$761.35	0
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Location Total:	<u>Addition Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>
	\$1,267,837.12	5,812	\$14,330.55	5

Available for Unitization:	<u>Addition Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>
	\$1,267,837.12	5,812	\$14,330.55	5

Unit Estimate Total:	<u>Addition Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>
	\$1,267,837.12	5,812	\$14,330.55	5

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account	Activity		Retire Qty	Retirement Amount
Asset Location		Vintage	Code		
Utility Account					
Retirement Unit					
Asset Description					
Selected Retirements:					
Missouri West	101000::Gas Plant In Service				
0401-043050 JACKSON CTY/KC					
376300-Mains - Plastic					
Mains-Plastic 4"					
OCR		2008	URET	5	\$1,681.42
		Utility Account Total:		5	\$1,681.42
		Location Total:		5	\$1,681.42
		GL Account Total:		5	\$1,681.42
		Selected Retirements:		5	\$1,681.42
		Work Order Total:		5	\$1,681.42

Work Order Authorization Information

Header Detail

<p>Work Order: 802217</p> <p>Work Order Title: Repl 1930F 2-4P Higginsville Ph1</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0604</p> <p>Funding Project Desc: Main Replacement - ISRS (S)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 920 Ft of 2 in PL IP Main and 1010 Ft of 4 in PL IP Main on E 22nd St, Lipper Ave, E 21st St, and E 20th ST.</p> <p>Major Location: 0308-Higginsville</p> <p>Asset Location: 0308-049004 LAFAYETTE CTY/HIGGINSVILLE</p> <p>Estimated Start Date: Dec 03, 2018 Estimated Completion Date: Dec 31, 2018 Estimated In-Service Date: Dec 31, 2018</p> <p>Notes: Abandon 5 Ft of 2 in PL MP Main, 150 Ft of 4 in PL MP Main, 2106 Ft of 2 in ST MP Main, 20 Ft of 2 in ST TF Main, 25 Ft of 4 in ST MP Main, 5 Ft of 6 in ST MP Main at the above locations. Upgrade 943 Ft of 2 in PL Main on E 21st St. Service Transfers = 21, Service Replacements = 1, Service Upgrades = 2, Service Abandons = 1. This main is being replaced as part of the Bare Steel Replacement Program.</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20638</p> <p>Department Description: Construction & Maintenance - Region 2B - Unio</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p style="text-align: right;">Status: in service</p>
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Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	9/12/2018
Engineering Review-Dist	Hoeflerlin, Craig	\$0	9/18/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	9/18/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$8,076.49	\$8,076.49	\$0.00	\$0.00
376300-Mains - Plastic	\$129,940.47	\$467.54	\$130,408.01	\$0.00	\$0.00
380100-Services - Steel	\$0.00	\$895.09	\$895.09	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$8,071.20	\$0.00	\$8,071.20	\$0.00	\$0.00
Total Estimated Costs:	\$138,011.67	\$9,439.12	\$147,450.79	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location						
Utility Account						
Retirement Unit						
Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0308-049004 LAFAYETTE CTY/HIGC						
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$903.51	\$32.60	0	0	0	0
Contractor Work	\$39,885.26	\$192.75	0	0	0	0
Department Clearings	\$781.54	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$505.06	\$18.22	0	0	0	0
Overheads Capitalized - General	\$18,456.14	\$84.77	0	0	0	0
Payroll Taxes	\$137.33	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	5	0	0
Stores	\$3,404.89	\$1.80	920	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$423.80	\$32.60	0	0	0	0
Contractor Work	\$41,959.48	\$12.75	0	0	0	0
Department Clearings	\$366.59	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$236.90	\$18.22	0	0	0	0
Overheads Capitalized - General	\$19,337.90	\$7.51	0	0	0	0
Payroll Taxes	\$64.42	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	150	0	0
Stores	\$3,477.65	\$0.00	1010	0	0	0
SubTotal Utility Account:	\$129,940.47	\$467.54	1,930.00	155.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 2"						
Contract Payroll	\$0.00	\$97.80	0	0	0	0
Contractor Work	\$0.00	\$4,988.50	0	0	0	0
Department Clearings	\$0.00	\$84.60	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$54.67	0	0	0	0
Overheads Capitalized - General	\$0.00	\$2,275.85	0	0	0	0
Payroll Taxes	\$0.00	\$14.87	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	2126	0	0
Stores	\$0.00	\$351.72	0	0	0	0
Mains-Steel 4"						
Contract Payroll	\$0.00	\$32.60	0	0	0	0
Contractor Work	\$0.00	\$12.75	0	0	0	0
Department Clearings	\$0.00	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$18.22	0	0	0	0
Overheads Capitalized - General	\$0.00	\$7.51	0	0	0	0
Payroll Taxes	\$0.00	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	25	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0308-049004 LAFAYETTE CTY/HIGC						
376100-Mains - Steel						
Mains-Steel 6"						
Contract Payroll	\$0.00	\$32.60	0	0	0	0
Contractor Work	\$0.00	\$12.75	0	0	0	0
Department Clearings	\$0.00	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$18.22	0	0	0	0
Overheads Capitalized - General	\$0.00	\$7.51	0	0	0	0
Payroll Taxes	\$0.00	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	5	0	0
SubTotal Utility Account:	\$0.00	\$8,076.49	0.00	2,156.00	0.00	0.00
380200-Services - Plastic & Copper						
Services-Plastic						
Contractor Work	\$5,343.75	\$0.00	0	0	0	0
Overheads Capitalized - General	\$2,407.20	\$0.00	0	0	0	0
Stores	\$320.25	\$0.00	0	0	0	0
SubTotal Utility Account:	\$8,071.20	\$0.00	0.00	0.00	0.00	0.00
380100-Services - Steel						
Services-Steel						
Contractor Work	\$0.00	\$628.13	0	0	0	0
Overheads Capitalized - General	\$0.00	\$266.96	0	0	0	0
SubTotal Utility Account:	\$0.00	\$895.09	0.00	0.00	0.00	0.00
SubTotal Location:	\$138,011.67	\$9,439.12	1,930.00	2,311.00	0.00	0.00
Total Unit Estimate:	\$138,011.67	\$9,439.12	1,930	2,311	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
CWIP Property Tax Type	MO-CWIP-Distribution Real
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit		Activity		
Asset Description		Vintage Code	Retire Qty	Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
0308-049004 LAFAYETTE CTY/HIGGINSVILLE				
376100-Mains - Steel				
Mains-Steel 2"				
OCR		URET	315	\$0.00
OCR		URET	566	\$0.00
OCR		URET	20	\$0.00
OCR		URET	245	\$0.00
OCR		URET	470	\$0.00
OCR		URET	92	\$0.00
OCR		URET	418	\$0.00
Mains-Steel 4"				
OCR		URET	25	\$0.00
Mains-Steel 6"				
OCR		URET	5	\$0.00
		Utility Account Total:	2,156	\$0.00
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		URET	5	\$0.00
Mains-Plastic 4"				
OCR		URET	150	\$0.00
		Utility Account Total:	155	\$0.00
		Location Total:	2,311	\$0.00
		GL Account Total:	2,311	\$0.00
		Posted Retirements:	2,311	\$0.00
		Work Order Total:	2,311	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 802175 Work Order Title: Repl 4490F 2-4P 8th & Hardesty Ph2C Wo Type Description: WO-Replacement Mains & Svcs MGE Work Order Group: Current Revision: 1 Funding Project: F0599 Funding Project Desc: Main Replacement - ISRS (N) Eligible for AFUDC: yes Eligible for CPI: yes Reason Code: Strategic WO Description: Install 3975 Ft of 2in PL IP main, 505 Ft of 2in PL LP main and 10 Ft of 4in PL IP main on Kensington Ave, Spruce Ave, Anderson Ave, and Smart Ave.</p>	<p>Company: Spire Missouri Inc. Business Segment: Missouri West Functional Class: Distribution Plant Department Code: 20648 Department Description: Construction & Maintenance - Region 2A - Unio Budget Description: Replace cast iron main - CPI / prio Est. Annual Revenue: Reimbursement Type: None Retirement Type:</p>
<p>Major Location: 0401-KC/MO - Central Asset Location: 0401-043050 JACKSON CTY/KC</p>	<p>Status: in service</p>
<p>Estimated Start Date: Dec 03, 2018 Estimated Completion Date: Dec 31, 2018 Estimated In-Service Date: Dec 31, 2018</p>	
<p>Notes: Abandon 855 Ft of 12in CI LP main, 303 Ft of 8in CI LP main, 440 Ft of 6in CI LP main, 3756 Ft of 4in CI LP main, 18 Ft of 4in PL LP main, 1442 Ft of 4in ST LP main, and 85 Ft of 2in ST LP main on St John Ave, Kensington Ave, Spruce Ave, Anderson Ave, Smart Ave, and Thompson Ave. Upgrade 1260 Ft of 4in PL LP main and 505 Ft of 2in PL LP main to IP on Kensington Ave and Spruce Ave. Total Service Tie-overs=122; Total Service Replacements=22; Total Service Upgrades=36; Total Service Abandons=18. This main is being replaced as part of the Cast Iron Replacement Program.</p>	

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	9/12/2018
Engineering Review-Dist	Hoeflerin, Craig	\$0	9/18/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	9/18/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$792.91	\$792.91	\$0.00	\$0.00
376200-Mains - Cast Iron	\$0.00	\$34,268.71	\$34,268.71	\$0.00	\$0.00
376300-Mains - Plastic	\$496,811.57	\$2,289.46	\$499,101.03	\$0.00	\$0.00
380100-Services - Steel	\$0.00	\$2,541.54	\$2,541.54	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$24,706.72	\$0.00	\$24,706.72	\$0.00	\$0.00
Total Estimated Costs:	\$521,518.29	\$39,892.62	\$561,410.91	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC						
376200-Mains - Cast Iron						
Mains-Cast Iron 12"						
Contract Payroll	\$0.00	\$65.20	0	0	0	0
Contractor Work	\$0.00	\$10,165.24	0	0	0	0
Department Clearings	\$0.00	\$56.40	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$36.45	0	0	0	0
Overheads Capitalized - General	\$0.00	\$4,480.91	0	0	0	0
Payroll Taxes	\$0.00	\$9.91	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	855	0	0
Stores	\$0.00	\$368.26	0	0	0	0
Mains-Cast Iron 4"						
Contract Payroll	\$0.00	\$195.60	0	0	0	0
Contractor Work	\$0.00	\$4,871.84	0	0	0	0
Department Clearings	\$0.00	\$169.19	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$109.34	0	0	0	0
Overheads Capitalized - General	\$0.00	\$3,176.05	0	0	0	0
Payroll Taxes	\$0.00	\$29.73	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	4512	0	0
Stores	\$0.00	\$2,571.76	0	0	0	0
Mains-Cast Iron 6"						
Contract Payroll	\$0.00	\$32.60	0	0	0	0
Contractor Work	\$0.00	\$5,326.33	0	0	0	0
Department Clearings	\$0.00	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$18.22	0	0	0	0
Overheads Capitalized - General	\$0.00	\$2,298.81	0	0	0	0
Payroll Taxes	\$0.00	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	440	0	0
Stores	\$0.00	\$77.73	0	0	0	0
Mains-Cast Iron 8"						
Contract Payroll	\$0.00	\$32.60	0	0	0	0
Contractor Work	\$0.00	\$63.10	0	0	0	0
Department Clearings	\$0.00	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$18.22	0	0	0	0
Overheads Capitalized - General	\$0.00	\$28.90	0	0	0	0
Payroll Taxes	\$0.00	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	303	0	0
SubTotal Utility Account:	\$0.00	\$34,268.71	0.00	6,110.00	0.00	0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC									
376300-Mains - Plastic									
Mains-Plastic 2"									
	Contract Payroll			\$2,638.38	\$0.00	0	0	0	0
	Contractor Work			\$317,472.54	\$0.00	0	0	0	0
	Department Clearings			\$2,282.20	\$0.00	0	0	0	0
	Overheads Capitalized - Benefits			\$1,474.85	\$0.00	0	0	0	0
	Overheads Capitalized - General			\$143,125.67	\$0.00	0	0	0	0
	Payroll Taxes			\$401.03	\$0.00	0	0	0	0
	Stores			\$18,896.43	\$0.00	4480	0	0	0
Mains-Plastic 4"									
	Contract Payroll			\$2,027.16	\$32.60	0	0	0	0
	Contractor Work			\$2,961.78	\$1,514.28	0	0	0	0
	Department Clearings			\$1,753.49	\$28.20	0	0	0	0
	Overheads Capitalized - Benefits			\$1,133.18	\$18.22	0	0	0	0
	Overheads Capitalized - General			\$1,671.30	\$659.24	0	0	0	0
	Payroll Taxes			\$308.13	\$4.96	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	18	0	0
	Stores			\$665.43	\$31.96	10	0	0	0
	SubTotal Utility Account:			\$496,811.57	\$2,289.46	4,490.00	18.00	0.00	0.00
376100-Mains - Steel									
Mains-Steel 2"									
	Contract Payroll			\$0.00	\$32.60	0	0	0	0
	Contractor Work			\$0.00	\$41.64	0	0	0	0
	Department Clearings			\$0.00	\$28.20	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$18.22	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$19.78	0	0	0	0
	Payroll Taxes			\$0.00	\$4.96	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	85	0	0
Mains-Steel 4"									
	Contract Payroll			\$0.00	\$97.80	0	0	0	0
	Contractor Work			\$0.00	\$273.20	0	0	0	0
	Department Clearings			\$0.00	\$84.60	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$54.67	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$122.37	0	0	0	0
	Payroll Taxes			\$0.00	\$14.87	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	1442	0	0
	SubTotal Utility Account:			\$0.00	\$792.91	0.00	1,527.00	0.00	0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC						
380200-Services - Plastic & Copper						
Services-Plastic						
Contractor Work	\$15,928.95	\$0.00	0	0	0	0
Overheads Capitalized - General	\$7,368.67	\$0.00	0	0	0	0
Stores	\$1,409.10	\$0.00	0	0	0	0
SubTotal Utility Account:	\$24,706.72	\$0.00	0.00	0.00	0.00	0.00
380100-Services - Steel						
Services-Steel						
Contractor Work	\$0.00	\$1,783.54	0	0	0	0
Overheads Capitalized - General	\$0.00	\$758.00	0	0	0	0
SubTotal Utility Account:	\$0.00	\$2,541.54	0.00	0.00	0.00	0.00
SubTotal Location:	\$521,518.29	\$39,892.62	4,490.00	7,655.00	0.00	0.00
Total Unit Estimate:	\$521,518.29	\$39,892.62	4,490	7,655	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	01 - Cast Iron Strategic Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** Work Order Retirements *****

Business Segment	GL Account	Activity Code	Retire Qty	Retirement Amount
Asset Location	Asset Description	Vintage		
Missouri West	101000::Gas Plant in Service			
0401-043050 JACKSON CTY/KC				
376100-Mains - Steel				
OCR	Mains-Steel 2"	URET	85	\$0.00
OCR	Mains-Steel 4"			
OCR		URET	65	\$0.00

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account				
Asset Location					
Utility Account					
Retirement Unit					
Asset Description		Vintage	Activity Code	Retire Qty	Retirement Amount
Posted Retirements:					
Missouri West	101000::Gas Plant in Service				
0401-043050 JACKSON CTY/KC					
376100-Mains - Steel					
Mains-Steel 4"					
OCR			URET	1,377	\$0.00
			Utility Account Total:	1,527	\$0.00
376200-Mains - Cast Iron					
Mains-Cast Iron 12"					
OCR			URET	855	\$0.00
Mains-Cast Iron 4"					
OCR			URET	2,446	\$0.00
OCR			URET	382	\$0.00
OCR			URET	1,130	\$0.00
OCR			URET	554	\$0.00
Mains-Cast Iron 6"					
OCR			URET	440	\$0.00
Mains-Cast Iron 8"					
OCR			URET	296	\$0.00
OCR			URET	2	\$0.00
OCR			URET	5	\$0.00
			Utility Account Total:	6,110	\$0.00
376300-Mains - Plastic					
Mains-Plastic 4"					
OCR			URET	8	\$0.00
OCR			URET	10	\$0.00
			Utility Account Total:	18	\$0.00
			Location Total:	7,655	\$0.00
			GL Account Total:	7,655	\$0.00
			Posted Retirements:	7,655	\$0.00
			Work Order Total:	7,655	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 802804</p> <p>Work Order Title: Repl 1295F 2P Old Hwy 36/Walnut St</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0599</p> <p>Funding Project Desc: Main Replacement - ISRS (N)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Customer Request</p> <p>WO Description: Install ~ 1295 ft of 2in PL MP main at W Grand Ave (Old US Hwy 36) and N Walnut St in Cameron.</p> <p>Major Location: 1236-Cameron - Dekalb Co.</p> <p>Asset Location: 1236-028001 DEKALB CTY/CAMERON</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20648</p> <p>Department Description: Construction & Maintenance - Region 2A - Unio</p> <p>Budget Description: Replace cast iron main - CPI / prio</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
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Estimated Start Date: Jul 15, 2019 **Estimated Completion Date:** Jul 19, 2019 **Estimated In-Service Date:** Jul 19, 2019

Notes: Abandon ~1274 ft of 2in ST MP main. Total service tie-overs = 7. This project is ISRS recoverable.

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	6/27/2019
Engineering Review-Dist	Hoeferlin, Craig	\$0	7/5/2019
VP Field Operations-MGE	Goodson, Timothy	\$1,000,000	7/8/2019

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$5,623.67	\$5,623.67	\$0.00	\$0.00
376300-Mains - Plastic	\$54,712.20	\$0.00	\$54,712.20	\$0.00	\$0.00
Total Estimated Costs:	\$54,712.20	\$5,623.67	\$60,335.87	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
1236-028001 DEKALB CTY/CAMER						
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$608.09	\$0.00	0	0	0	0
Contractor Work	\$29,787.49	\$0.00	0	0	0	0
Department Clearings	\$893.89	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$535.12	\$0.00	0	0	0	0
Overheads Capitalized - General	\$19,957.75	\$0.00	0	0	0	0
Payroll Taxes	\$92.43	\$0.00	0	0	0	0
Stores	\$2,837.43	\$0.00	1295	0	0	0
SubTotal Utility Account:	\$54,712.20	\$0.00	1,295.00	0.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 2"						
Contract Payroll	\$0.00	\$178.85	0	0	0	0
Contractor Work	\$0.00	\$2,928.22	0	0	0	0
Department Clearings	\$0.00	\$262.91	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$157.39	0	0	0	0
Overheads Capitalized - General	\$0.00	\$1,903.73	0	0	0	0
Payroll Taxes	\$0.00	\$27.19	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	1274	0	0
Stores	\$0.00	\$165.38	0	0	0	0
SubTotal Utility Account:	\$0.00	\$5,623.67	0.00	1,274.00	0.00	0.00
SubTotal Location:	\$54,712.20	\$5,623.67	1,295.00	1,274.00	0.00	0.00
Total Unit Estimate:	\$54,712.20	\$5,623.67	1,295	1,274	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	06 - Other Legacy Main Material Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit		Activity		
Asset Description		Vintage Code	Retire Qty	Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
1236-028001 DEKALB CTY/CAMERON				
376100-Mains - Steel				
Mains-Steel 2"				
OCR		URET	44	\$0.00
OCR		URET	1,230	\$0.00
		Utility Account Total:	1,274	\$0.00
		Location Total:	1,274	\$0.00
		GL Account Total:	1,274	\$0.00
		Posted Retirements:	1,274	\$0.00
		Work Order Total:	1,274	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 800348</p> <p>Work Order Title: Repl 5980F 2-4-6P St Joe St Ph 3A</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 2</p> <p>Funding Project: F0599</p> <p>Funding Project Desc: Main Replacement - ISRS (N)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 2495 Ft of 2 in PL IP main, 855 Ft of 4 in PL IP main, and 2630 Ft of 6 in PL IP Main on King Hill Rd, Walter Ln, Gideon Ln, and Parker Rd.</p> <p>Major Location: 1001-St. Joseph</p> <p>Asset Location: 1001-010001 ST. JOSEPH CITY/BUCHANAN</p>	<p>Company: Splre Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20648</p> <p>Department Description: Construction & Maintenance - Region 2A - Unio</p> <p>Budget Description: Replace cast iron main - CPI / prio</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: In service</p>
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Estimated Start Date: Oct 15, 2016 **Estimated Completion Date:** Dec 15, 2016 **Estimated In-Service Date:** Dec 15, 2016

Notes: Abandon 30 Ft of 2 in ST HP main, 2569 Ft of 2 in ST LP main, 57 Ft of 4 in ST LP main, 249 Ft of 2 in PL LP main, and 27 Ft of 4 in PL LP main at the above locations. Total Service Tie-over = 44; Total Service Abandon = 5; Total Service Replace = 10; This main is being abandoned as part of FY18 Bare Steel Replacement Program.

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	1/16/2018
Engineering Review-Dist	Hoeflerlin, Craig	\$0	1/16/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	1/17/2018

***** Unit Estimate *****

Utility Account	Additlons	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$12,382.12	\$12,382.12	\$0.00	\$0.00
376300-Mains - Plastic	\$498,442.28	\$789.09	\$499,231.37	\$0.00	\$0.00
380100-Services - Steel	\$0.00	\$71.56	\$71.56	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$8,101.03	\$820.72	\$8,921.75	\$0.00	\$0.00
Total Estimated Costs:	\$506,543.31	\$14,063.49	\$520,606.80	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
1001-010001 ST. JOSEPH CITY/BU						
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$32,180.58	\$0.00	0	0	0	0
Contractor Work	\$104,624.80	\$0.00	0	0	0	0
Department Clearings	\$27,836.20	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$17,988.94	\$0.00	0	0	0	0
Overheads Capitalized - General	\$50,946.51	\$0.00	0	0	0	0
Payroll Taxes	\$4,891.45	\$0.00	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	331	0	0
Stores	\$10,403.33	\$0.00	2495	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$11,895.64	\$294.72	0	0	0	0
Contractor Work	\$17,911.16	\$0.00	0	0	0	0
Department Clearings	\$10,289.73	\$254.93	0	0	0	0
Overheads Capitalized - Benefits	\$6,649.66	\$164.75	0	0	0	0
Overheads Capitalized - General	\$9,526.38	\$22.15	0	0	0	0
Payroll Taxes	\$1,808.14	\$44.80	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	422	0	0
Stores	\$2,712.52	\$7.74	855	0	0	0
Mains-Plastic 6"						
Contract Payroll	\$61,418.42	\$0.00	0	0	0	0
Contractor Work	\$2,914.50	\$0.00	0	0	0	0
Department Clearings	\$53,126.93	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$34,332.90	\$0.00	0	0	0	0
Overheads Capitalized - General	\$11,873.84	\$0.00	0	0	0	0
Payroll Taxes	\$9,335.60	\$0.00	0	0	0	0
Stores	\$15,775.05	\$0.00	2630	0	0	0
SubTotal Utility Account:	\$498,442.28	\$789.09	5,980.00	753.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 2"						
Contract Payroll	\$0.00	\$2,641.92	0	0	0	0
Contractor Work	\$0.00	\$255.56	0	0	0	0
Department Clearings	\$0.00	\$2,285.26	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$1,476.83	0	0	0	0
Overheads Capitalized - General	\$0.00	\$1,781.83	0	0	0	0
Payroll Taxes	\$0.00	\$401.57	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	5303	0	0
Stores	\$0.00	\$3,539.15	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
1001-010001 ST. JOSEPH CITY/BUK						
376100-Mains - Steel						
Mains-Steel 4"						
Retirement Value	\$0.00	\$0.00	0	958	0	0
SubTotal Utility Account:	\$0.00	\$12,382.12	0.00	6,261.00	0.00	0.00
380200-Services - Plastic & Copper						
Services-Plastic						
Contract Payroll	\$2,644.80	\$310.88	0	0	0	0
Department Clearings	\$2,287.75	\$268.91	0	0	0	0
Overheads Capitalized - Benefits	\$1,478.44	\$173.78	0	0	0	0
Overheads Capitalized - General	\$502.93	\$19.90	0	0	0	0
Payroll Taxes	\$402.01	\$47.25	0	0	0	0
Stores	\$785.10	\$0.00	0	0	0	0
SubTotal Utility Account:	\$8,101.03	\$820.72	0.00	0.00	0.00	0.00
380100-Services - Steel						
Services-Steel						
Contract Payroll	\$0.00	\$16.30	0	0	0	0
Department Clearings	\$0.00	\$14.10	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$9.11	0	0	0	0
Overheads Capitalized - General	\$0.00	\$9.55	0	0	0	0
Payroll Taxes	\$0.00	\$2.48	0	0	0	0
Stores	\$0.00	\$20.02	0	0	0	0
SubTotal Utility Account:	\$0.00	\$71.56	0.00	0.00	0.00	0.00
SubTotal Location:	\$506,543.31	\$14,063.49	5,980.00	7,014.00	0.00	0.00
Total Unit Estimate:	\$506,543.31	\$14,063.49	5,980	7,014	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
CWIP Property Tax Type	MO-CWIP-Distribution Real
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit				
Asset Description		Activity Vintage Code	Retire Qty	Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant In Service			
1001-010001 ST. JOSEPH CITY/BUCHANAN				
376100-Mains - Steel				
Mains-Steel 2"				
OCR		URET	1,485	\$0.00
OCR		URET	386	\$0.00
OCR		URET	161	\$0.00
OCR		URET	30	\$0.00
OCR		URET	537	\$0.00
Mains-Steel 4"				
OCR		URET	57	\$0.00
		Utility Account Total:	2,656	\$0.00
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		URET	199	\$0.00
OCR		URET	50	\$0.00
Mains-Plastic 4"				
OCR		URET	27	\$0.00
		Utility Account Total:	276	\$0.00
		Location Total:	2,932	\$0.00
		GL Account Total:	2,932	\$0.00
		Posted Retirements:	2,932	\$0.00
		Work Order Total:	2,932	\$0.00

Work Order Authorization Information

Header Detail	
<p>Work Order: 800642</p> <p>Work Order Title: Repl w 5346F 2-4P East Dwtown Ph 5</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0604</p> <p>Funding Project Desc: Main Replacement - ISRS (S)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 10 Ft of 4 in PL IP Main and 5336 Ft of 2 in PL IP Main along Green St, 5th, 6th, 7th St, 7th Ter, Douglas St, 9th St, and Miller St.</p> <p>Major Location: 0901-Lee's Summit</p> <p>Asset Location: 0901-043021 JACKSON CTY/LEE'S SUMMIT OFFIC</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20638</p> <p>Department Description: Construction & Maintenance - Region 2B - Unio</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
<p>Estimated Start Date: Apr 01, 2016 Estimated Completion Date: Jul 29, 2016 Estimated In-Service Date: Jul 29, 2016</p> <p>Notes: Abandon 2729 Ft of 4in ST MP Main, 2974 Ft of 2in ST MP Main, 15 Ft of 4in PL MP Main, 154 Ft of 2in PL MP Main at the above location. Uprate 265 Ft of 6 in PL MP, 1728 Ft of 4in PL MP Main and 2149 Ft of 2" PL MP Main at the above location. Total Service Tie-over = 69; Total Service Replacement = 4; Total Service Abandoned = 2; Total Service Upgrade = 69; This main is being abandoned as part of FY16 Bare Steel Replacement Program.</p>	

<p>Reason for Work (Justification)</p>

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	10/30/2016
Engineering Review-Dist S	Hoeflerlin, Craig	\$0	11/4/2016
VP Field Operations-MGE	Hampton, Joe	\$500,000	11/7/2016

**** Unit Estimate ****						
Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage	
376100-Mains - Steel	\$0.00	\$3,580.69	\$3,580.69	\$0.00	\$0.00	
376300-Mains - Plastic	\$234,992.74	\$4,202.09	\$239,194.83	\$0.00	\$0.00	
380200-Services - Plastic & Copper	\$5,829.93	\$0.00	\$5,829.93	\$0.00	\$0.00	
Total Estimated Costs:	\$240,822.67	\$7,782.78	\$248,605.45	\$0.00	\$0.00	

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0901-043021	JACKSON CTY/LEE'S								
	376300-Mains - Plastic								
	Mains-Plastic 2"								
	Contract Payroll			\$2,802.92	\$16.21	0	0	0	0
	Contractor Work			\$141,631.55	\$662.34	0	0	0	0
	Department Clearings			\$2,424.53	\$14.02	0	0	0	0
	Mechanical Equipment			\$462.30	\$3.35	0	0	0	0
	Overheads Capitalized - Benefits			\$1,566.83	\$9.06	0	0	0	0
	Overheads Capitalized - General			\$67,813.38	\$286.25	0	0	0	0
	Payroll Taxes			\$426.04	\$2.46	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	154	0	0
	Stores			\$17,044.95	\$5.40	5336	0	0	0
	Mains-Plastic 4"								
	Contract Payroll			\$32.41	\$16.21	0	0	0	0
	Contractor Work			\$442.36	\$2,176.04	0	0	0	0
	Department Clearings			\$28.03	\$14.02	0	0	0	0
	Mechanical Equipment			\$6.70	\$3.35	0	0	0	0
	Overheads Capitalized - Benefits			\$18.12	\$9.06	0	0	0	0
	Overheads Capitalized - General			\$221.19	\$943.56	0	0	0	0
	Payroll Taxes			\$4.93	\$2.46	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	15	0	0
	Stores			\$66.50	\$38.30	10	0	0	0
	SubTotal Utility Account:			\$234,992.74	\$4,202.09	5,346.00	169.00	0.00	0.00
	376100-Mains - Steel								
	Mains-Steel 2"								
	Contract Payroll			\$0.00	\$291.69	0	0	0	0
	Contractor Work			\$0.00	\$715.36	0	0	0	0
	Department Clearings			\$0.00	\$252.31	0	0	0	0
	Mechanical Equipment			\$0.00	\$60.30	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$163.05	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$348.32	0	0	0	0
	Payroll Taxes			\$0.00	\$44.34	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	2974	0	0
	Mains-Steel 4"								
	Contract Payroll			\$0.00	\$259.28	0	0	0	0
	Contractor Work			\$0.00	\$662.76	0	0	0	0
	Department Clearings			\$0.00	\$224.28	0	0	0	0
	Mechanical Equipment			\$0.00	\$53.60	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$144.94	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0901-043021 JACKSON CTY/LEE'S									
376100-Mains - Steel									
Mains-Steel 4"									
	Overheads Capitalized - General			\$0.00	\$321.05	0	0	0	0
	Payroll Taxes			\$0.00	\$39.41	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	2729	0	0
	SubTotal Utility Account:			\$0.00	\$3,580.69	0.00	5,703.00	0.00	0.00
380200-Services - Plastic & Copper									
Services-Plastic									
	Contract Payroll			\$627.74	\$0.00	0	0	0	0
	Contractor Work			\$2,928.20	\$0.00	0	0	0	0
	Department Clearings			\$543.00	\$0.00	0	0	0	0
	Overheads Capitalized - Benefits			\$350.91	\$0.00	0	0	0	0
	Overheads Capitalized - General			\$1,284.66	\$0.00	0	0	0	0
	Payroll Taxes			\$95.42	\$0.00	0	0	0	0
	SubTotal Utility Account:			\$5,829.93	\$0.00	0.00	0.00	0.00	0.00
	SubTotal Location:			\$240,822.67	\$7,782.78	5,346.00	5,872.00	0.00	0.00
	Total Unit Estimate:			\$240,822.67	\$7,782.78	5,346	5,872	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** Work Order Retirements *****

Business Segment	GL Account	Activity	Retire Qty	Retirement Amount
Asset Location	Utility Account	Vintage Code		
Retirement Unit	Asset Description			
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
0901-043021 JACKSON CTY/LEE'S SUMMIT OFFIC				
376100-Mains - Steel				
Mains-Steel 2"				
OCR		URET	221	\$0.00

Work Order Authorization Information

OCR

URET

100

\$0.00

***** Work Order Retirements *****

Business Segment	GL Account	Activity Code	Retire Qty	Retirement Amount
Asset Location				
Utility Account				
Retirement Unit				
Asset Description	Vintage	Code		
OCR		URET	409	\$0.00
OCR		URET	445	\$0.00
OCR		URET	23	\$0.00
OCR		URET	439	\$0.00
OCR		URET	6	\$0.00
OCR		URET	257	\$0.00
OCR		URET	722	\$0.00
OCR		URET	58	\$0.00
Mains-Steel 4"				

OCR

URET

180

\$0.00

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account		URET	593	\$0.00
Retirement Unit		Activity		
Asset Description		Code	Retire Qty	Retirement Amount
OCR		URET	1,467	\$0.00
OCR		URET	208	\$0.00
OCR		URET	42	\$0.00
OCR		URET	130	\$0.00
OCR		URET	109	\$0.00
		Utility Account Total:	5,703	\$0.00
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		URET	5	\$0.00
OCR		URET	139	\$0.00
OCR		URET	10	\$0.00
Mains-Plastic 4"				

Work Order Authorization Information

***** Work Order Retirements *****			
Business Segment	GL Account		
Asset Location			
Utility Account		URET	5 \$0.00
Retirement Unit		Activity	
Asset Description		Vintage Code	Retire Qty Retirement Amount
OCR		URET	5 \$0.00
		Utility Account Total:	169 \$0.00
		Location Total:	5,872 \$0.00
		GL Account Total:	5,872 \$0.00
		Posted Retirements:	5,872 \$0.00
		Work Order Total:	5,872 \$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 801260</p> <p>Work Order Title: Repl 7760F 2-4P Carthage 2 Grid 2D</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0572</p> <p>Funding Project Desc: Main Replacement - ISRS (SW)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 6530 Ft. 2 in. PL IP Main and 1230 Ft. 4 in. PL IP Main on McGregor St., High St., Claxton Ave., Vine St., Mound St., US HWY 96, and US Hwy 71.</p> <p>Major Location: 0601-Carthage</p> <p>Asset Location: 0601-044025 JASPER CTY/CARTHAGE</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20921</p> <p>Department Description: Region 2B - SW Missouri - Distribution - Union</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
<p>Estimated Start Date: Dec 01, 2017 Estimated Completion Date: Feb 12, 2018 Estimated In-Service Date: Feb 12, 2018</p> <p>Notes: Abandon 100 Ft of 2 in PL LP Main, 1182 Ft of 3 in PL LP Main, 157 Ft of 4 in PL IP Main, 56 Ft of 4 in PL LP Main, 389 Ft of 2 in ST IP Main, 2422 Ft of 2 in ST LP Main, 160 Ft of 3 in ST IP Main, 1184 Ft of 3 in ST LP Main, 1174 Ft of 4 in ST IP Main, 2346 Ft of 4 in ST LP Main, and 222 Ft of 6 in ST LP Main on the above mentioned streets. Upgrade 348 Ft. of 2 in. PL LP main on Maple St., 438 Ft. of 3 in. PL LP main on Maple St., 700 Ft. of 4 in. PL LP main on Maple St., 95 Ft. of 2 in. PL LP main on 2nd St., 206 Ft. of 4 in. PL LP main on 2nd St., 940 Ft. of 4 in. PL LP main on US Hwy 96., 236 Ft. of 2 in. ST LP Main on Mound St., and 353 Ft. of 3 in. ST LP Main on Mound St. Total service tie overs = 83; Total service abandon =22; Total service replace = 1; Total Services Upgrades=48. This main is being replaced as part of the FY18 Bare Steel Replacement Program</p>	

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	10/23/2017
Engineering Review-Dist	Hoeflerlin, Craig	\$0	10/27/2017
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	10/27/2017

***** Unit Estimate *****					
Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$10,849.63	\$10,849.63	\$0.00	\$0.00
376300-Mains - Plastic	\$499,113.10	\$9,550.56	\$508,663.66	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$1,017.54	\$115.52	\$1,133.06	\$0.00	\$0.00
Total Estimated Costs:	\$500,130.64	\$20,515.71	\$520,646.35	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0601-044025 JASPER CTY/CARTHA									
376300-Mains - Plastic									
Mains-Plastic 2"									
	Contract Payroll			\$2,722.44	\$32.41	0	0	0	0
	Contractor Work			\$264,937.47	\$2,045.08	0	0	0	0
	Department Clearings			\$2,354.91	\$28.03	0	0	0	0
	Mechanical Equipment			\$562.80	\$6.70	0	0	0	0
	Overheads Capitalized - Benefits			\$1,521.84	\$18.12	0	0	0	0
	Overheads Capitalized - General			\$118,544.16	\$910.05	0	0	0	0
	Payroll Taxes			\$413.81	\$4.93	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	100	0	0
	Stores			\$13,017.20	\$84.64	6530	0	0	0
Mains-Plastic 3"									
	Contract Payroll			\$0.00	\$97.23	0	0	0	0
	Contractor Work			\$0.00	\$804.38	0	0	0	0
	Department Clearings			\$0.00	\$84.10	0	0	0	0
	Mechanical Equipment			\$0.00	\$20.10	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$54.35	0	0	0	0
	Overheads Capitalized - General			\$5.52	\$360.54	0	0	0	0
	Payroll Taxes			\$0.00	\$14.78	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	1182	0	0
	Stores			\$12.99	\$9.20	0	0	0	0
Mains-Plastic 4"									
	Contract Payroll			\$518.56	\$32.41	0	0	0	0
	Contractor Work			\$62,002.07	\$3,355.56	0	0	0	0
	Department Clearings			\$448.55	\$28.03	0	0	0	0
	Mechanical Equipment			\$107.20	\$6.70	0	0	0	0
	Overheads Capitalized - Benefits			\$289.88	\$18.12	0	0	0	0
	Overheads Capitalized - General			\$27,964.18	\$1,460.60	0	0	0	0
	Payroll Taxes			\$78.82	\$4.93	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	213	0	0
	Stores			\$3,610.70	\$69.57	1230	0	0	0
	SubTotal Utility Account:			\$499,113.10	\$9,550.56	7,760.00	1,495.00	0.00	0.00
376100-Mains - Steel									
Mains-Steel 2"									
	Contract Payroll			\$0.00	\$226.87	0	0	0	0
	Contractor Work			\$0.00	\$1,029.46	0	0	0	0
	Department Clearings			\$0.00	\$196.24	0	0	0	0
	Mechanical Equipment			\$0.00	\$46.90	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location

Utility Account

Retirement Unit

Est. Chg Type

Addition Dollars

Retirement Dollars

Add Qty

Retire Qty

Add Hrs

Retire Hrs

0601-044025 JASPER CTY/CARTHA

376100-Mains - Steel

Mains-Steel 2"

Overheads Capitalized - Benefits	\$0.00	\$126.82	0	0	0	0
Overheads Capitalized - General	\$0.00	\$539.17	0	0	0	0
Payroll Taxes	\$0.00	\$34.48	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	2811	0	0
Stores	\$0.00	\$158.10	0	0	0	0

Mains-Steel 3"

Contract Payroll	\$0.00	\$97.23	0	0	0	0
Contractor Work	\$0.00	\$1,723.24	0	0	0	0
Department Clearings	\$0.00	\$84.10	0	0	0	0
Mechanical Equipment	\$0.00	\$20.10	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$54.35	0	0	0	0
Overheads Capitalized - General	\$0.00	\$827.67	0	0	0	0
Payroll Taxes	\$0.00	\$14.78	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	1344	0	0
Stores	\$0.00	\$189.47	0	0	0	0

Mains-Steel 4"

Contract Payroll	\$0.00	\$291.69	0	0	0	0
Contractor Work	\$0.00	\$2,627.28	0	0	0	0
Department Clearings	\$0.00	\$252.31	0	0	0	0
Mechanical Equipment	\$0.00	\$60.30	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$163.05	0	0	0	0
Overheads Capitalized - General	\$0.00	\$1,363.92	0	0	0	0
Payroll Taxes	\$0.00	\$44.34	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	3520	0	0
Stores	\$0.00	\$477.71	0	0	0	0

Mains-Steel 6"

Contract Payroll	\$0.00	\$32.41	0	0	0	0
Contractor Work	\$0.00	\$73.64	0	0	0	0
Department Clearings	\$0.00	\$28.03	0	0	0	0
Mechanical Equipment	\$0.00	\$6.70	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$18.12	0	0	0	0
Overheads Capitalized - General	\$0.00	\$36.22	0	0	0	0
Payroll Taxes	\$0.00	\$4.93	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	222	0	0

SubTotal Utility Account:

\$0.00	\$10,849.63	0.00	7,897.00	0.00	0.00
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Work Order Authorization Information

***** Unit Estimate *****

***** Unit Estimate *****							
Asset Location							
Utility Account							
Retirement Unit							
Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs	
0601-044025 JASPER CTY/CARTHA							
380200-Services - Plastic & Copper							
Services-Plastic							
Contractor Work	\$689.70	\$81.07	0	0	0	0	
Overheads Capitalized - General	\$303.48	\$34.45	0	0	0	0	
Stores	\$24.36	\$0.00	391	0	0	0	
SubTotal Utility Account:	\$1,017.54	\$115.52	391.00	0.00	0.00	0.00	
SubTotal Location:	\$500,130.64	\$20,515.71	8,151.00	9,392.00	0.00	0.00	
Total Unit Estimate:	\$500,130.64	\$20,515.71	8,151	9,392	0	0	

***** Class Codes *****

***** Class Codes *****	
Class Code	Value
cap_expense	capital
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** Work Order Retirements *****

***** Work Order Retirements *****							
Business Segment		GL Account					
Asset Location							
Utility Account							
Retirement Unit							
Asset Description			Activity		Retire Qty	Retirement Amount	
		Vintage	Code				
Posted Retirements:							
Missouri West		101000::Gas Plant in Service					
0601-044025 JASPER CTY/CARTHAGE							
376100-Mains - Steel							
Mains-Steel 2"							
OCR			URET		501	\$0.00	
OCR			URET		912	\$0.00	
OCR			URET		211	\$0.00	
OCR			URET		748	\$0.00	
OCR			URET		50	\$0.00	
OCR			URET		389	\$0.00	
Mains-Steel 3"							
OCR			URET		160	\$0.00	
OCR			URET		87	\$0.00	

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account				
Asset Location					
Utility Account					
Retirement Unit					
Asset Description		Vintage	Activity Code	Retire Qty	Retirement Amount
Posted Retirements:					
Missouri West	101000::Gas Plant in Service				
0601-044025 JASPER CTY/CARTHAGE					
376100-Mains - Steel					
Mains-Steel 3"					
OCR			URET	494	\$0.00
OCR			URET	600	\$0.00
OCR			URET	3	\$0.00
Mains-Steel 4"					
OCR			URET	158	\$0.00
OCR			URET	930	\$0.00
OCR			URET	1,715	\$0.00
OCR			URET	75	\$0.00
OCR			URET	50	\$0.00
OCR			URET	592	\$0.00
Mains-Steel 6"					
OCR			URET	2	\$0.00
OCR			URET	220	\$0.00
			Utility Account Total:	7,897	\$0.00
376300-Mains - Plastic					
Mains-Plastic 2"					
OCR			URET	100	\$0.00
Mains-Plastic 3"					
OCR			URET	655	\$0.00
OCR			URET	12	\$0.00
OCR			URET	41	\$0.00
OCR			URET	474	\$0.00
Mains-Plastic 4"					
OCR			URET	56	\$0.00
OCR			URET	46	\$0.00
OCR			URET	111	\$0.00
			Utility Account Total:	1,495	\$0.00
			Location Total:	9,392	\$0.00
			GL Account Total:	9,392	\$0.00
			Posted Retirements:	9,392	\$0.00
			Work Order Total:	9,392	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 800666 Work Order Title: Repl 6425F 2-4P Neosho C-001 Ph1F Wo Type Description: WO-Replacement Mains & Svcs MGE Work Order Group: Current Revision: 1 Funding Project: F0572 Funding Project Desc: Main Replacement - ISRS (SW) Eligible for AFUDC yes Eligible for CPI: yes Reason Code: Strategic WO Description: Install 1950 Ft. of 2 inch PL IP Main, and 4475 Ft. of 4 inch PL IP Main on High St. Ripley St., College St., McQuarry Ave., Hill St., McKinney St., and Oak St.</p>	<p>Company: Spire Missouri Inc. Business Segment: Missouri West Functional Class: Distribution Plant Department Code: 20921 Department Description: Region 2B - SW Missouri - Distribution - Union Budget Description: Replace bare steel main - safely re Est. Annual Revenue: Reimbursement Type: None Retirement Type:</p>
<p>Major Location: 0806-Neosho Asset Location: 0806-066010 NEWTON CTY/NEOSHO</p>	<p>Status: in service</p>
<p>Estimated Start Date: Mar 13, 2017 Estimated Completion Date: Apr 09, 2018 Estimated In-Service Date: Apr 09, 2018</p> <p>Notes: Abandon 330 Ft of 1 1/4 in PL IP Main, 122 Ft of 1 1/8 in PL IP Main, 182 Ft of 2 in PL IP Main, 36 Ft of 7/8 in PL IP Main, 1665 Ft of 2 in ST IP Main, 4006 Ft of 4 in ST IP Main, and 12 Ft of 6 in ST IP Main on the above mentioned streets. Total Service Tie-over =78; Total Service Abandoned = 6; Total Service Replace = 10. This main is being replaced as part of FY18 Bare Steel Replacement Program.</p>	

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	2/13/2018
Engineering Review-Dist	Hoferlin, Craig	\$0	2/17/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	2/19/2018

**** Unit Estimate ****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$10,397.50	\$10,397.50	\$0.00	\$0.00
376300-Mains - Plastic	\$465,807.44	\$3,811.48	\$469,618.92	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$60,726.09	\$1,155.25	\$61,881.34	\$0.00	\$0.00
Total Estimated Costs:	\$526,533.53	\$15,364.23	\$541,897.76	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location						
Utility Account						
Retirement Unit						
Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0806-066010 NEWTON CTY/NEOS-						
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$815.00	\$28.39	0	0	0	0
Contractor Work	\$80,160.25	\$1,202.12	0	0	0	0
Department Clearings	\$704.98	\$24.56	0	0	0	0
Overheads Capitalized - Benefits	\$455.59	\$15.87	0	0	0	0
Overheads Capitalized - General	\$35,131.11	\$553.02	0	0	0	0
Payroll Taxes	\$123.88	\$4.32	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	182	0	0
Stores	\$2,378.46	\$94.82	1950	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$1,890.80	\$0.00	0	0	0	0
Contractor Work	\$224,770.38	\$736.32	0	0	0	0
Department Clearings	\$1,635.54	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$1,056.96	\$0.00	0	0	0	0
Overheads Capitalized - General	\$101,836.62	\$319.52	0	0	0	0
Payroll Taxes	\$287.40	\$0.00	0	0	0	0
Stores	\$14,560.47	\$15.48	4475	0	0	0
Mains-Plastic Under 2"						
Contract Payroll	\$0.00	\$56.78	0	0	0	0
Contractor Work	\$0.00	\$464.73	0	0	0	0
Department Clearings	\$0.00	\$49.11	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$31.74	0	0	0	0
Overheads Capitalized - General	\$0.00	\$202.61	0	0	0	0
Payroll Taxes	\$0.00	\$8.63	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	488	0	0
Stores	\$0.00	\$3.46	0	0	0	0
SubTotal Utility Account:	\$465,807.44	\$3,811.48	6,425.00	670.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 2"						
Contract Payroll	\$0.00	\$141.95	0	0	0	0
Contractor Work	\$0.00	\$3,633.51	0	0	0	0
Department Clearings	\$0.00	\$122.79	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$79.35	0	0	0	0
Overheads Capitalized - General	\$0.00	\$1,688.59	0	0	0	0
Payroll Taxes	\$0.00	\$21.58	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	1665	0	0
Stores	\$0.00	\$318.26	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0806-066010 NEWTON CTY/NEOS-									
376100-Mains - Steel									
Mains-Steel 4"									
	Contract Payroll			\$0.00	\$340.68	0	0	0	0
	Contractor Work			\$0.00	\$429.20	0	0	0	0
	Department Clearings			\$0.00	\$294.69	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$190.44	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$204.21	0	0	0	0
	Payroll Taxes			\$0.00	\$51.78	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	4006	0	0
Mains-Steel 6"									
	Contract Payroll			\$0.00	\$28.39	0	0	0	0
	Contractor Work			\$0.00	\$1,786.64	0	0	0	0
	Department Clearings			\$0.00	\$24.56	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$15.87	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$838.55	0	0	0	0
	Payroll Taxes			\$0.00	\$4.32	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	12	0	0
	Stores			\$0.00	\$182.14	0	0	0	0
	SubTotal Utility Account:			\$0.00	\$10,397.50	0.00	5,683.00	0.00	0.00
380200-Services - Plastic & Copper									
Services-Plastic									
	Contractor Work			\$38,114.12	\$810.70	0	0	0	0
	Overheads Capitalized - General			\$18,111.29	\$344.55	0	0	0	0
	Stores			\$4,500.68	\$0.00	0	0	0	0
	SubTotal Utility Account:			\$60,726.09	\$1,155.25	0.00	0.00	0.00	0.00
	SubTotal Location:			\$526,533.53	\$15,364.23	6,425.00	6,353.00	0.00	0.00
	Total Unit Estimate:			\$526,533.53	\$15,364.23	6,425	6,353	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit				
Asset Description		Vintage	Activity Code	Retire Qty Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
0806-066010 NEWTON CTY/NEOSHO				
376100-Mains - Steel				
Mains-Steel 2"				
OCR			URET	93 \$0.00
OCR			URET	1,127 \$0.00
OCR			URET	75 \$0.00
OCR			URET	34 \$0.00
OCR			URET	134 \$0.00
OCR			URET	202 \$0.00
Mains-Steel 4"				
OCR			URET	37 \$0.00
OCR			URET	3,969 \$0.00
Mains-Steel 6"				
OCR			URET	12 \$0.00
			Utility Account Total:	5,683 \$0.00
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR			URET	125 \$0.00
OCR			URET	35 \$0.00
OCR			URET	22 \$0.00
			Utility Account Total:	182 \$0.00
			Location Total:	5,865 \$0.00
			GL Account Total:	5,865 \$0.00
			Posted Retirements:	5,865 \$0.00
			Work Order Total:	5,865 \$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 801899</p> <p>Work Order Title: Repl 8895F 2-4-6-8-12 St Joe Headr1</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0599</p> <p>Funding Project Desc: Main Replacement - ISRS (N)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 615 Ft. of 2 inch PL IP Main, 90 Ft. of 4 inch PL IP Main, 75 Ft. of 6 inch PL IP Main, 4020 Ft. of 8 inch PL IP Main and 4095 Ft. of 12 inch PL IP on Noyles Blvd., Clay St., Union St, N 27th St., N 26th St., and N 25th St.</p> <p>Major Location: 1001-St. Joseph</p> <p>Asset Location: 1001-010001 ST. JOSEPH CITY/BUCHANAN</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20648</p> <p>Department Description: Construction & Maintenance - Region 2A - Unio</p> <p>Budget Description: Replace cast iron main - CPI / prio</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
<p>Estimated Start Date: May 01, 2018 Estimated Completion Date: Jun 25, 2018 Estimated In-Service Date: Jun 25, 2018</p> <p>Notes: Abandon 3 Ft of 2 in PL IP Main, 10 Ft of 4 in PL LP Main, 84 Ft of 6 in PL IP Main, 131 Ft of 2 in ST IP Main, 25 Ft of 4 in ST IP Main, and 8090 Ft of 6 in ST IP Main on the above mentioned streets. Uprate 1006 Ft. of 4 in PL LP main on Union St and Upgrade 1768 Ft of 4 in PL LP main on Union St and N 25th St. Total Service Tie-over =53; Total Service Abandoned = 2; Total Service Replace = 11; Total Service Uprates = 22; Total Service Upgrades=32. The installation of this header main will allow us to abandon bare steel mains in subsequent grid phases.</p>	

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	4/12/2018
Engineering Review-Dist	Hoeferlin, Craig	\$0	4/14/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	4/14/2018
Chief Operating Officer	Lindsey, Steve	\$5,000,000	4/16/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$33,905.98	\$33,905.98	\$0.00	\$0.00
376300-Mains - Plastic	\$1,093,980.98	\$12,803.26	\$1,106,784.24	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$9,333.36	\$20,106.52	\$29,439.88	\$0.00	\$0.00
Total Estimated Costs:	\$1,103,314.34	\$66,815.76	\$1,170,130.10	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
1001-010001 ST. JOSEPH CITY/BC						
376300-Mains - Plastic						
Mains-Plastic 12"						
Contract Payroll	\$154,166.50	\$0.00	0	0	0	0
Contractor Work	\$37,405.44	\$0.00	0	0	0	0
Department Clearings	\$133,354.02	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$86,179.07	\$0.00	0	0	0	0
Overheads Capitalized - General	\$71,295.02	\$250.81	0	0	0	0
Payroll Taxes	\$23,433.31	\$0.00	0	0	0	0
Stores	\$107,722.04	\$0.00	4095	0	0	0
Mains-Plastic 2"						
Contract Payroll	\$7,316.70	\$1,178.88	0	0	0	0
Contractor Work	\$4,995.43	\$10.73	0	0	0	0
Department Clearings	\$6,328.95	\$1,019.73	0	0	0	0
Overheads Capitalized - Benefits	\$4,090.04	\$658.99	0	0	0	0
Overheads Capitalized - General	\$3,249.11	\$83.31	0	0	0	0
Payroll Taxes	\$1,112.14	\$179.19	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	3	0	0
Stores	\$1,547.72	\$7.76	615	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$2,624.78	\$1,768.32	0	0	0	0
Contractor Work	\$1,208.28	\$1,541.27	0	0	0	0
Department Clearings	\$2,270.43	\$1,529.60	0	0	0	0
Overheads Capitalized - Benefits	\$1,467.25	\$988.49	0	0	0	0
Overheads Capitalized - General	\$2,517.20	\$383.72	0	0	0	0
Payroll Taxes	\$398.97	\$268.78	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	10	0	0
Stores	\$3,368.16	\$46.44	90	0	0	0
Mains-Plastic 6"						
Contract Payroll	\$1,693.96	\$1,077.12	0	0	0	0
Contractor Work	\$650.32	\$10.73	0	0	0	0
Department Clearings	\$1,465.28	\$931.71	0	0	0	0
Overheads Capitalized - Benefits	\$946.92	\$602.11	0	0	0	0
Overheads Capitalized - General	\$2,449.78	\$81.95	0	0	0	0
Payroll Taxes	\$257.48	\$163.72	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	84	0	0
Stores	\$4,858.78	\$19.90	75	0	0	0
Mains-Plastic 8"						
Contract Payroll	\$119,138.64	\$0.00	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
1001-010001 ST. JOSEPH CITY/BU						
376300-Mains - Plastic						
Mains-Plastic 8"						
Contractor Work	\$35,834.01	\$0.00	0	0	0	0
Department Clearings	\$103,054.92	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$66,598.50	\$0.00	0	0	0	0
Overheads Capitalized - General	\$40,754.56	\$0.00	0	0	0	0
Payroll Taxes	\$18,109.07	\$0.00	0	0	0	0
Stores	\$42,118.20	\$0.00	4020	0	0	0
SubTotal Utility Account:	\$1,093,980.98	\$12,803.26	8,895.00	97.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 2"						
Contract Payroll	\$0.00	\$1,468.32	0	0	0	0
Contractor Work	\$0.00	\$112.66	0	0	0	0
Department Clearings	\$0.00	\$1,270.10	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$820.79	0	0	0	0
Overheads Capitalized - General	\$0.00	\$206.37	0	0	0	0
Payroll Taxes	\$0.00	\$223.18	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	131	0	0
Stores	\$0.00	\$151.81	0	0	0	0
Mains-Steel 4"						
Contract Payroll	\$0.00	\$2,644.57	0	0	0	0
Contractor Work	\$0.00	\$10.73	0	0	0	0
Department Clearings	\$0.00	\$2,287.55	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$1,478.31	0	0	0	0
Overheads Capitalized - General	\$0.00	\$252.19	0	0	0	0
Payroll Taxes	\$0.00	\$401.97	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	25	0	0
Stores	\$0.00	\$184.42	0	0	0	0
Mains-Steel 6"						
Contract Payroll	\$0.00	\$4,960.50	0	0	0	0
Contractor Work	\$0.00	\$1,019.35	0	0	0	0
Department Clearings	\$0.00	\$4,290.83	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$2,772.92	0	0	0	0
Overheads Capitalized - General	\$0.00	\$3,090.35	0	0	0	0
Payroll Taxes	\$0.00	\$754.00	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	8090	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
1001-010001 ST. JOSEPH CITY/BUCHANAN						
376100-Mains - Steel						
Mains-Steel 6"						
Stores	\$0.00	\$5,505.06	0	0	0	0
SubTotal Utility Account:	\$0.00	\$33,905.98	0.00	8,246.00	0.00	0.00
380200-Services - Plastic & Copper						
Services-Plastic						
Contract Payroll	\$3,152.87	\$7,610.85	0	0	0	0
Department Clearings	\$2,727.23	\$6,583.39	0	0	0	0
Overheads Capitalized - Benefits	\$1,762.45	\$4,254.47	0	0	0	0
Overheads Capitalized - General	\$502.95	\$491.23	0	0	0	0
Payroll Taxes	\$479.24	\$1,156.85	0	0	0	0
Stores	\$708.62	\$9.73	0	0	0	0
SubTotal Utility Account:	\$9,333.36	\$20,106.52	0.00	0.00	0.00	0.00
SubTotal Location:	\$1,103,314.34	\$66,815.76	8,895.00	8,343.00	0.00	0.00
Total Unit Estimate:	\$1,103,314.34	\$66,815.76	8,895	8,343	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
CWIP Property Tax Type	MO-CWIP-Distribution Real
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** Work Order Retirements *****

Business Segment	GL Account	Activity	Retire Qty	Retirement Amount
Asset Location		Vintage Code		
Utility Account				
Retirement Unit				
Asset Description				
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
1001-010001 ST. JOSEPH CITY/BUCHANAN				
376100-Mains - Steel				
Mains-Steel 2"				
OCR		URET	103	\$0.00

OCR

Mains-Steel 4"

Work Order Authorization Information

URET

28

\$0.00

***** Work Order Retirements *****

Business Segment	GL Account	URET	25	\$0.00
Asset Location				
Utility Account		URET		
Retirement Unit		Activity	Retire Qty	Retirement Amount
Asset Description		Code		
OCR		URET	2,099	\$0.00
OCR		URET	5,981	\$0.00
OCR		URET	10	\$0.00
		Utility Account Total:	<u>8,246</u>	<u>\$0.00</u>
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		URET	3	\$0.00
Mains-Plastic 4"				
OCR		URET	7	\$0.00
OCR		URET	3	\$0.00
Mains-Plastic 6"				
OCR		URET	84	\$0.00
		Utility Account Total:	<u>97</u>	<u>\$0.00</u>
		Location Total:	<u>8,343</u>	<u>\$0.00</u>
		GL Account Total:	<u>8,343</u>	<u>\$0.00</u>
		Posted Retirements:	<u>8,343</u>	<u>\$0.00</u>
		Work Order Total:	<u>8,343</u>	<u>\$0.00</u>

Work Order Authorization Information

Header Detail

<p>Work Order: 801551</p> <p>Work Order Title: Repl 9904F 2-4P Windsor Ph 9 Miller</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0604</p> <p>Funding Project Desc: Main Replacement - ISRS (S)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 8494 Ft of 2in PL IP main and 1410 Ft of 4in PL IP main on S Windsor St, S Hughes St, S Lawn St, S Smith St, E Colt St, Century St, Holmes Dr, E Washington St, Poplar Dr, E Jackson St, E Benton St and in the Alley Southeast of S Main St.</p> <p>Major Location: 0322-Windsor - Henry Co.</p> <p>Asset Location: 0322-037001 HENRY CTY/WINDSOR</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20638</p> <p>Department Description: Construction & Maintenance - Region 2B - Unio</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
<p>Estimated Start Date: Jul 16, 2018 Estimated Completion Date: Aug 27, 2018 Estimated In-Service Date: Aug 27, 2018</p> <p>Notes: Abandon 10 Ft of 2in PL MP main, 30 Ft of 4in PL MP main, 2213 Ft of 2in ST MP main, 4653 Ft of 3in ST MP main, 163 Ft of 4in ST IP main, and 4458 Ft of 4in ST MP main on S Windsor St, S Hughes St, S Lawn St, S Smith St, E Colt St, Century St, Holmes Dr, E Washington St, Poplar Dr, E Jackson St, E Benton St and in the Alley Southeast of S Main St. Upgrade 675 Ft of 2in PL MP main and Uprate 527 Ft of 4in PL MP main on Holmes Dr, E Colt St, and S Windsor St. Total Service Tie-overs=103; Total Service Replace=7; Total Service Abandons=48; Total Service Uprates=5; Total Service Upgrades=12. This main is being replaced as part of FY18 bare steel replacement program.</p>	

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	5/21/2018
Engineering Review-Dist S	Hoeflerlin, Craig	\$0	5/21/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	5/22/2018

**** Unit Estimate ****						
Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage	
376100-Mains - Steel	\$0.00	\$27,487.86	\$27,487.86	\$0.00	\$0.00	
376300-Mains - Plastic	\$728,380.77	\$1,769.91	\$730,150.68	\$0.00	\$0.00	
380200-Services - Plastic & Copper	\$11,837.75	\$1,253.12	\$13,090.87	\$0.00	\$0.00	
Total Estimated Costs:	\$740,218.52	\$30,510.89	\$770,729.41	\$0.00	\$0.00	

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0322-037001 HENRY CTY/WINDSOI						
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$3,553.40	\$32.60	0	0	0	0
Contractor Work	\$411,676.46	\$732.75	0	0	0	0
Department Clearings	\$3,073.69	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$1,986.35	\$18.22	0	0	0	0
Overheads Capitalized - General	\$182,549.73	\$316.80	0	0	0	0
Payroll Taxes	\$540.12	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	10	0	0
Stores	\$17,317.21	\$7.76	8494	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$619.40	\$32.60	0	0	0	0
Contractor Work	\$69,355.52	\$372.75	0	0	0	0
Department Clearings	\$535.78	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$346.24	\$18.22	0	0	0	0
Overheads Capitalized - General	\$31,668.17	\$163.90	0	0	0	0
Payroll Taxes	\$94.15	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	30	0	0
Stores	\$5,064.55	\$7.99	1410	0	0	0
SubTotal Utility Account:	\$728,380.77	\$1,769.91	9,904.00	40.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 2"						
Contract Payroll	\$0.00	\$163.00	0	0	0	0
Contractor Work	\$0.00	\$2,629.50	0	0	0	0
Department Clearings	\$0.00	\$141.00	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$91.12	0	0	0	0
Overheads Capitalized - General	\$0.00	\$1,213.07	0	0	0	0
Payroll Taxes	\$0.00	\$24.78	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	2213	0	0
Stores	\$0.00	\$200.24	0	0	0	0
Mains-Steel 3"						
Contract Payroll	\$0.00	\$423.80	0	0	0	0
Contractor Work	\$0.00	\$514.50	0	0	0	0
Department Clearings	\$0.00	\$366.59	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$236.90	0	0	0	0
Overheads Capitalized - General	\$0.00	\$245.79	0	0	0	0
Payroll Taxes	\$0.00	\$64.42	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	4653	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0322-037001 HENRY CTY/WINDSOI						
376100-Mains - Steel						
Mains-Steel 4"						
Contract Payroll	\$0.00	\$391.20	0	0	0	0
Contractor Work	\$0.00	\$12,034.50	0	0	0	0
Department Clearings	\$0.00	\$338.39	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$218.68	0	0	0	0
Overheads Capitalized - General	\$0.00	\$6,031.82	0	0	0	0
Payroll Taxes	\$0.00	\$59.46	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	4621	0	0
Stores	\$0.00	\$2,099.10	0	0	0	0
SubTotal Utility Account:	\$0.00	\$27,487.86	0.00	11,487.00	0.00	0.00
380200-Services - Plastic & Copper						
Services-Plastic						
Contractor Work	\$7,856.25	\$879.38	0	0	0	0
Overheads Capitalized - General	\$3,530.56	\$373.74	0	0	0	0
Stores	\$450.94	\$0.00	0	0	0	0
SubTotal Utility Account:	\$11,837.75	\$1,253.12	0.00	0.00	0.00	0.00
SubTotal Location:	\$740,218.52	\$30,510.89	9,904.00	11,527.00	0.00	0.00
Total Unit Estimate:	\$740,218.52	\$30,510.89	9,904	11,527	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
CWIP Property Tax Type	MO-CWIP-Distribution Real
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit				
Asset Description		Vintage	Activity Code	Retire Qty Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
0322-037001 HENRY CTY/WINDSOR				
376100-Mains - Steel				
Mains-Steel 2"				
OCR			URET	320 \$0.00
OCR			URET	60 \$0.00
OCR			URET	206 \$0.00
OCR			URET	100 \$0.00
OCR			URET	442 \$0.00
OCR			URET	135 \$0.00
OCR			URET	578 \$0.00
OCR			URET	112 \$0.00
OCR			URET	105 \$0.00
OCR			URET	155 \$0.00
Mains-Steel 3"				
OCR			URET	310 \$0.00
OCR			URET	37 \$0.00
OCR			URET	402 \$0.00
OCR			URET	207 \$0.00
OCR			URET	270 \$0.00
OCR			URET	84 \$0.00
OCR			URET	452 \$0.00
OCR			URET	474 \$0.00
OCR			URET	1,654 \$0.00
OCR			URET	257 \$0.00
OCR			URET	506 \$0.00
Mains-Steel 4"				
OCR			URET	199 \$0.00
OCR			URET	110 \$0.00
OCR			URET	1,559 \$0.00
OCR			URET	2,750 \$0.00
OCR			URET	3 \$0.00
			Utility Account Total:	11,487 \$0.00
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR			URET	5 \$0.00
OCR			URET	5 \$0.00
Mains-Plastic 4"				
OCR			URET	25 \$0.00
OCR			URET	5 \$0.00
			Utility Account Total:	40 \$0.00
			Location Total:	11,527 \$0.00
			GL Account Total:	11,527 \$0.00
			Posted Retirements:	11,527 \$0.00
			Work Order Total:	11,527 \$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 801552</p> <p>Work Order Title: Repl 9280F 2-4P Windsor Miller Ph10</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0604</p> <p>Funding Project Desc: Main Replacement - ISRS (S)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 5060 Ft of 2in PL IP main and 4220 Ft of 4in PL IP main on E Benton St, E Florence St, W Florence St, N Main St, Glass St, Bowen Ave, Winchell Ave, N Tebo St, Pettis St, County Line Rd, N County Line Rd.</p> <p>Major Location: 0322-Windsor - Henry Co.</p> <p>Asset Location: 0322-037001 HENRY CTY/WINDSOR</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20638</p> <p>Department Description: Construction & Maintenance - Region 2B - Unio</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
<p>Estimated Start Date: Aug 27, 2018 Estimated Completion Date: Sep 28, 2018 Estimated In-Service Date: Sep 28, 2018</p> <p>Notes: N County Line Rd and in the Alley Southeast of S Main St . Abandon 205 Ft of 2in PL MP main, 765 Ft of 4in PL MP main, 2595 Ft of 2in ST MP main, 6085 Ft of 3in ST MP main and 2436 Ft of 4in ST MP main on E Benton St, E Florence St, W Florence St, N Main St, Parmelee Dr, Glass St, Bowen Ave, Winchell Ave, Taylor Ave, N Tebo St, Pettis St, N County Line Rd and in the Alley Southeast of S Main St. Upgrade 885 Ft of 2in PL MP main and Uprate 1058 Ft of 2in PL MP main on Bowen Ave, Pettis St, County Line Rd and N County Line Rd. Total Service Tie-overs= 56; Total Service Replace=2; Total Service Abandons=39; Total Service Uprates=9; Total Service Upgrades=8. This main is being replaced as part of FY18 bare steel replacement program.</p>	

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	6/17/2018
Engineering Review-Dist S	Hoeflerlin, Craig	\$0	6/21/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	6/22/2018

***** Unit Estimate *****						
Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage	
376100-Mains - Steel	\$0.00	\$9,425.00	\$9,425.00	\$0.00	\$0.00	
376300-Mains - Plastic	\$591,881.75	\$2,007.67	\$593,889.42	\$0.00	\$0.00	
380100-Services - Steel	\$0.00	\$358.03	\$358.03	\$0.00	\$0.00	
380200-Services - Plastic & Copper	\$6,515.58	\$0.00	\$6,515.58	\$0.00	\$0.00	
Total Estimated Costs:	\$598,397.33	\$11,790.70	\$610,188.03	\$0.00	\$0.00	

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0322-037001 HENRY CTY/WINDSOI						
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$2,439.48	\$65.20	0	0	0	0
Contractor Work	\$185,534.52	\$1,118.25	0	0	0	0
Department Clearings	\$2,110.15	\$56.40	0	0	0	0
Overheads Capitalized - Benefits	\$1,363.67	\$36.45	0	0	0	0
Overheads Capitalized - General	\$82,163.36	\$484.02	0	0	0	0
Payroll Taxes	\$370.80	\$9.91	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	205	0	0
Stores	\$7,423.68	\$10.80	5060	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$1,858.20	\$65.20	0	0	0	0
Contractor Work	\$188,816.48	\$38.25	0	0	0	0
Department Clearings	\$1,607.34	\$56.40	0	0	0	0
Overheads Capitalized - Benefits	\$1,038.73	\$36.45	0	0	0	0
Overheads Capitalized - General	\$91,253.97	\$20.43	0	0	0	0
Payroll Taxes	\$282.45	\$9.91	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	765	0	0
Stores	\$25,618.92	\$0.00	4220	0	0	0
SubTotal Utility Account:	\$591,881.75	\$2,007.67	9,280.00	970.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 2"						
Contract Payroll	\$0.00	\$195.60	0	0	0	0
Contractor Work	\$0.00	\$89.25	0	0	0	0
Department Clearings	\$0.00	\$169.19	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$109.34	0	0	0	0
Overheads Capitalized - General	\$0.00	\$50.45	0	0	0	0
Payroll Taxes	\$0.00	\$29.73	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	2595	0	0
Mains-Steel 3"						
Contract Payroll	\$0.00	\$456.40	0	0	0	0
Contractor Work	\$0.00	\$306.00	0	0	0	0
Department Clearings	\$0.00	\$394.79	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$255.13	0	0	0	0
Overheads Capitalized - General	\$0.00	\$159.26	0	0	0	0
Payroll Taxes	\$0.00	\$69.37	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	6085	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location

Utility Account

Retirement Unit

Est. Chg Type

Addition Dollars Retirement Dollars Add Qty Retire Qty Add Hrs Retire Hrs

0322-037001 HENRY CTY/WINDSOI

376100-Mains - Steel

Mains-Steel 4"

Contract Payroll	\$0.00	\$195.60	0	0	0	0
Contractor Work	\$0.00	\$3,946.50	0	0	0	0
Department Clearings	\$0.00	\$169.19	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$109.34	0	0	0	0
Overheads Capitalized - General	\$0.00	\$1,988.13	0	0	0	0
Payroll Taxes	\$0.00	\$29.73	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	2436	0	0
Stores	\$0.00	\$702.00	0	0	0	0

SubTotal Utility Account: \$0.00 \$9,425.00 0.00 11,116.00 0.00 0.00

380200-Services - Plastic & Copper

Services-Plastic

Contractor Work	\$4,212.00	\$0.00	0	0	0	0
Overheads Capitalized - General	\$1,943.24	\$0.00	0	0	0	0
Stores	\$360.34	\$0.00	0	0	0	0

SubTotal Utility Account: \$6,515.58 \$0.00 0.00 0.00 0.00 0.00

380100-Services - Steel

Services-Steel

Contractor Work	\$0.00	\$251.25	0	0	0	0
Overheads Capitalized - General	\$0.00	\$106.78	0	0	0	0

SubTotal Utility Account: \$0.00 \$358.03 0.00 0.00 0.00 0.00

SubTotal Location: \$598,397.33 \$11,790.70 9,280.00 12,086.00 0.00 0.00

Total Unit Estimate: \$598,397.33 \$11,790.70 9,280 12,086 0 0

***** Class Codes *****

Class Code	Value
cap_expense	capital
CWIP Property Tax Type	MO-CWIP-Distribution Real
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit		Activity		
Asset Description		Vintage Code	Retire Qty	Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
0322-037001 HENRY CTY/WINDSOR				
376100-Mains - Steel				
Mains-Steel 2"				
OCR		URET	584	\$0.00
OCR		URET	231	\$0.00
OCR		URET	242	\$0.00
OCR		URET	728	\$0.00
OCR		URET	305	\$0.00
OCR		URET	126	\$0.00
OCR		URET	50	\$0.00
OCR		URET	329	\$0.00
Mains-Steel 3"				
OCR		URET	200	\$0.00
OCR		URET	580	\$0.00
OCR		URET	441	\$0.00
OCR		URET	25	\$0.00
OCR		URET	585	\$0.00
OCR		URET	901	\$0.00
OCR		URET	203	\$0.00
OCR		URET	630	\$0.00
OCR		URET	63	\$0.00
OCR		URET	107	\$0.00
OCR		URET	1,545	\$0.00
OCR		URET	805	\$0.00
Mains-Steel 4"				
OCR		URET	908	\$0.00
OCR		URET	216	\$0.00
OCR		URET	267	\$0.00
OCR		URET	1,045	\$0.00
		Utility Account Total:	11,116	\$0.00
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		URET	27	\$0.00
OCR		URET	3	\$0.00
OCR		URET	44	\$0.00
OCR		URET	131	\$0.00
Mains-Plastic 4"				
OCR		URET	280	\$0.00
OCR		URET	85	\$0.00
OCR		URET	400	\$0.00
		Utility Account Total:	970	\$0.00
		Location Total:	12,086	\$0.00
		GL Account Total:	12,086	\$0.00
		Posted Retirements:	12,086	\$0.00
		Work Order Total:	12,086	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 802028</p> <p>Work Order Title: Repl 6370F 2-4P 33rd & Grand Ph 1F</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0604</p> <p>Funding Project Desc: Main Replacement - ISRS (S)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install - 5045 Ft of 2 in PL IP Main, and 1325 Ft of 4 in PL IP Main on W Scott Pl, W 27th Ter S, W 28th Ter S, S Fuller Ave, W 27th St S, W Sheley Rd, and S Norwood ave.</p> <p>Major Location: 0201-Independence</p> <p>Asset Location: 0201-043001 JACKSON CTY//INDEPENDENCE</p> <p>Estimated Start Date: Oct 01, 2018 Estimated Completion Date: Nov 26, 2018 Estimated In-Service Date: Nov 26, 2018</p> <p>Notes: Abandon - 1 Ft of 2 in PL LP Main, and 1 Ft of 2 in PL IP Main, and 85 Ft of 4 in PL LP Main, and And 1 Ft of 6 in PL LP Main, and 5887 Ft of 2 in ST LP Main, and 1720 Ft of 4 in ST LP Main, and 97 Ft of 4 in ST IP Main, and 38 Ft of 6 in ST LP Main at the above locations. Upgrade - 1674 Ft of 4 in PL LP Main to IP on W Sheley Red, W 27th St S, W Scott Pl, and S Norwood Ave. Total Service Tie Over = 143; Total Service Abandon = 4; Total Service Upgrade = 21. These mains are being replaced as part of FY18 BST Main Replacement Program.</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20638</p> <p>Department Description: Construction & Maintenance - Region 2B - Unio</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
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Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	6/17/2018
Engineering Review-Dist S	Hoeflerlin, Craig	\$0	6/21/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	6/22/2018

**** Unit Estimate ****						
Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage	
376100-Mains - Steel	\$0.00	\$6,523.25	\$6,523.25	\$0.00	\$0.00	
376300-Mains - Plastic	\$598,859.39	\$45,919.81	\$644,779.20	\$0.00	\$0.00	
Total Estimated Costs:	\$598,859.39	\$52,443.06	\$651,302.45	\$0.00	\$0.00	

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0201-043001	JACKSON CTY//INDEP								
	376300-Mains - Plastic								
	Mains-Plastic 2"								
	Contract Payroll			\$2,119.00	\$65.20	0	0	0	0
	Contractor Work			\$288,701.19	\$31.56	0	0	0	0
	Department Clearings			\$1,832.94	\$56.40	0	0	0	0
	Overheads Capitalized - Benefits			\$1,184.52	\$36.45	0	0	0	0
	Overheads Capitalized - General			\$130,810.59	\$256.13	0	0	0	0
	Payroll Taxes			\$322.09	\$9.91	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	2	0	0
	Stores			\$19,330.61	\$0.00	5045	0	0	0
	Mains-Plastic 4"								
	Contract Payroll			\$972.46	\$163.00	0	0	0	0
	Contractor Work			\$86,958.46	\$413.52	0	0	0	0
	Department Clearings			\$841.18	\$141.00	0	0	0	0
	Overheads Capitalized - Benefits			\$543.61	\$91.12	0	0	0	0
	Overheads Capitalized - General			\$39,888.32	\$189.57	0	0	0	0
	Payroll Taxes			\$147.81	\$24.78	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	85	0	0
	Stores			\$6,749.98	\$7.99	1325	0	0	0
	Mains-Plastic 6"								
	Contract Payroll			\$0.00	\$32.60	0	0	0	0
	Contractor Work			\$0.00	\$44,052.90	0	0	0	0
	Department Clearings			\$0.00	\$28.20	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$18.22	0	0	0	0
	Overheads Capitalized - General			\$18,456.63	\$276.40	0	0	0	0
	Payroll Taxes			\$0.00	\$4.96	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	1	0	0
	Stores			\$0.00	\$19.90	0	0	0	0
	SubTotal Utility Account:			\$598,859.39	\$45,919.81	6,370.00	88.00	0.00	0.00
	376100-Mains - Steel								
	Mains-Steel 2"								
	Contract Payroll			\$0.00	\$130.40	0	0	0	0
	Contractor Work			\$0.00	\$70.48	0	0	0	0
	Department Clearings			\$0.00	\$112.80	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$72.89	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$1,554.27	0	0	0	0
	Payroll Taxes			\$0.00	\$19.82	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	5887	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location

Utility Account

Retirement Unit

Est. Chg Type

Addition Dollars

Retirement Dollars

Add Qty

Retire Qty

Add Hrs

Retire Hrs

0201-043001 JACKSON CTY/INDEP

376100-Mains - Steel

Mains-Steel 2"

Stores

\$0.00 \$3,567.00 0 0 0 0

Mains-Steel 4"

Contract Payroll

\$0.00 \$163.00 0 0 0 0

Contractor Work

\$0.00 \$52.60 0 0 0 0

Department Clearings

\$0.00 \$141.00 0 0 0 0

Overheads Capitalized - Benefits

\$0.00 \$91.12 0 0 0 0

Overheads Capitalized - General

\$0.00 \$32.79 0 0 0 0

Payroll Taxes

\$0.00 \$24.78 0 0 0 0

Retirement Value

\$0.00 \$0.00 0 1817 0 0

Mains-Steel 6"

Contract Payroll

\$0.00 \$163.00 0 0 0 0

Contractor Work

\$0.00 \$42.08 0 0 0 0

Department Clearings

\$0.00 \$141.00 0 0 0 0

Overheads Capitalized - Benefits

\$0.00 \$91.12 0 0 0 0

Overheads Capitalized - General

\$0.00 \$28.32 0 0 0 0

Payroll Taxes

\$0.00 \$24.78 0 0 0 0

Retirement Value

\$0.00 \$0.00 0 38 0 0

SubTotal Utility Account:

\$0.00 \$6,523.25 0.00 7,742.00 0.00 0.00

SubTotal Location:

\$598,859.39 \$52,443.06 6,370.00 7,830.00 0.00 0.00

Total Unit Estimate:

\$598,859.39 \$52,443.06 6,370 7,830 0 0

***** Class Codes *****

Class Code

Value

cap_expense

capital

CWIP Property Tax Type

MO-CWIP-Distribution Real

ISRS Reason

03 - Bare Steel Replacement

isrs_recov

yes

ohbenefits

yes

ohgen_supv

yes

prod_nonprod

prod

Project Classification

both

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit		Activity		
Asset Description		Vintage Code	Retire Qty	Retirement Amount
Selected Retirements:				
Missouri West	101000::Gas Plant in Service			
0201-043001 JACKSON CTY/INDEPENDENCE				
376100-Mains - Steel				
Mains-Steel 2"				
OCR		URET	303	\$0.00
OCR		URET	134	\$0.00
OCR		URET	1,596	\$0.00
OCR		URET	1,426	\$0.00
OCR		URET	1,946	\$0.00
OCR		URET	278	\$0.00
OCR		URET	204	\$0.00
Mains-Steel 4"				
OCR		URET	1,604	\$0.00
OCR		URET	97	\$0.00
OCR		URET	116	\$0.00
Mains-Steel 6"				
OCR		URET	38	\$0.00
		Utility Account Total:	7,742	\$0.00
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		URET	2	\$0.00
Mains-Plastic 4"				
OCR		URET	85	\$0.00
Mains-Plastic 6"				
OCR		URET	1	\$0.00
		Utility Account Total:	88	\$0.00
		Location Total:	7,830	\$0.00
		GL Account Total:	7,830	\$0.00
		Selected Retirements:	7,830	\$0.00
		Work Order Total:	7,830	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 802113</p> <p>Work Order Title: Repl 7320F 2P Higginsville Ph 1H</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0604</p> <p>Funding Project Desc: Main Replacement - ISRS (S)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 7320 Ft of 2 in PL IP Main on BUS MO-13, Fair Ground Ave, W 23rd St, W 24th St, W 25th St, W 26th St, Locust St, Oak St, Elm St, Walnut St, MO-T, Main St, Shelby St.</p> <p>Major Location: 0308-Higginsville</p> <p>Asset Location: 0308-049004 LAFAYETTE CTY/HIGGINSVILLE</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20638</p> <p>Department Description: Construction & Maintenance - Region 2B - Unio</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
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Estimated Start Date: Sep 03, 2018 **Estimated Completion Date:** Sep 30, 2018 **Estimated In-Service Date:** Sep 30, 2018

Notes: Abandon 2000 Ft of 2 in PL MP Main, 8112 Ft of 2 in ST MP Main, 378 Ft of 3 in ST MP Main, 1765 Ft of 4 in ST MP Main, 2958 Ft of 6 in ST MP Main at the above locations. Upgrade 1051 Ft of 2 in PL Main at the above locations. Uprate 830 Ft of 2 in PL Main on Eastwood Ave. Service Transfers = 65, Service Replacements = 6, Service Upgrades = 12, Service Uprates = 4, Service Abandons = 29. This main is being replaced as part of the FY18 Bare Steel Replacement Program.

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	6/19/2018
Engineering Review-Dist	Hoeflerlin, Craig	\$0	6/21/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	6/22/2018

**** Unit Estimate ****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$17,592.24	\$17,592.24	\$0.00	\$0.00
376300-Mains - Plastic	\$448,434.50	\$3,103.21	\$451,537.71	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$9,688.60	\$1,074.09	\$10,762.69	\$0.00	\$0.00
Total Estimated Costs:	\$458,123.10	\$21,769.54	\$479,892.64	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0308-049004	LAFAYETTE CTY/HIGC								
	376300-Mains - Plastic								
	Mains-Plastic 2"								
	Contract Payroll			\$3,316.31	\$97.80	0	0	0	0
	Contractor Work			\$293,501.98	\$1,978.50	0	0	0	0
	Department Clearings			\$2,868.61	\$84.60	0	0	0	0
	Overheads Capitalized - Benefits			\$1,853.82	\$54.67	0	0	0	0
	Overheads Capitalized - General			\$131,344.71	\$854.77	0	0	0	0
	Payroll Taxes			\$504.08	\$14.87	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	2000	0	0
	Stores			\$15,044.99	\$18.00	7320	0	0	0
	SubTotal Utility Account:			\$448,434.50	\$3,103.21	7,320.00	2,000.00	0.00	0.00
	376100-Mains - Steel								
	Mains-Steel 2"								
	Contract Payroll			\$0.00	\$456.40	0	0	0	0
	Contractor Work			\$0.00	\$754.00	0	0	0	0
	Department Clearings			\$0.00	\$394.79	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$255.13	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$349.66	0	0	0	0
	Payroll Taxes			\$0.00	\$69.37	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	8112	0	0
	Mains-Steel 3"								
	Contract Payroll			\$0.00	\$32.60	0	0	0	0
	Contractor Work			\$0.00	\$51.00	0	0	0	0
	Department Clearings			\$0.00	\$28.20	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$18.22	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$23.76	0	0	0	0
	Payroll Taxes			\$0.00	\$4.96	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	378	0	0
	Mains-Steel 4"								
	Contract Payroll			\$0.00	\$456.40	0	0	0	0
	Contractor Work			\$0.00	\$3,990.25	0	0	0	0
	Department Clearings			\$0.00	\$394.79	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$255.13	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$2,023.42	0	0	0	0
	Payroll Taxes			\$0.00	\$69.37	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	1765	0	0
	Stores			\$0.00	\$702.00	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0308-049004 LAFAYETTE CTY/HIGC						
376100-Mains - Steel						
Mains-Steel 6"						
Contract Payroll	\$0.00	\$130.40	0	0	0	0
Contractor Work	\$0.00	\$3,829.50	0	0	0	0
Department Clearings	\$0.00	\$112.80	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$72.89	0	0	0	0
Overheads Capitalized - General	\$0.00	\$2,071.77	0	0	0	0
Payroll Taxes	\$0.00	\$19.82	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	2958	0	0
Stores	\$0.00	\$1,025.61	0	0	0	0
SubTotal Utility Account:	\$0.00	\$17,592.24	0.00	13,213.00	0.00	0.00
380200-Services - Plastic & Copper						
Services-Plastic						
Contractor Work	\$6,412.50	\$753.75	0	0	0	0
Overheads Capitalized - General	\$2,889.58	\$320.34	0	0	0	0
Stores	\$386.52	\$0.00	0	0	0	0
SubTotal Utility Account:	\$9,688.60	\$1,074.09	0.00	0.00	0.00	0.00
SubTotal Location:	\$458,123.10	\$21,769.54	7,320.00	15,213.00	0.00	0.00
Total Unit Estimate:	\$458,123.10	\$21,769.54	7,320	15,213	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
CWIP Property Tax Type	MO-CWIP-Distribution Real
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit		Activity		
Asset Description		Vintage Code	Retire Qty	Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
0308-049004	LAFAYETTE CTY/HIGGINSVILLE			
376100-Mains - Steel				
Mains-Steel 2"				
OCR		URET	367	\$0.00
OCR		URET	1,174	\$0.00
OCR		URET	869	\$0.00
OCR		URET	337	\$0.00
OCR		URET	498	\$0.00
OCR		URET	150	\$0.00
OCR		URET	594	\$0.00
OCR		URET	42	\$0.00
OCR		URET	694	\$0.00
OCR		URET	213	\$0.00
OCR		URET	209	\$0.00
OCR		URET	134	\$0.00
OCR		URET	1,827	\$0.00
OCR		URET	113	\$0.00
OCR		URET	240	\$0.00
OCR		URET	51	\$0.00
OCR		URET	197	\$0.00
OCR		URET	288	\$0.00
OCR		URET	38	\$0.00
OCR		URET	77	\$0.00
Mains-Steel 3"				
OCR		URET	378	\$0.00
Mains-Steel 4"				
OCR		URET	1,076	\$0.00
OCR		URET	114	\$0.00
OCR		URET	49	\$0.00
OCR		URET	528	\$0.00
Mains-Steel 6"				
OCR		URET	2,327	\$0.00
OCR		URET	615	\$0.00
OCR		URET	16	\$0.00
		Utility Account Total:	13,213	\$0.00
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		URET	130	\$0.00
OCR		URET	714	\$0.00
OCR		URET	160	\$0.00
OCR		URET	50	\$0.00
OCR		URET	5	\$0.00

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit		Activity		
Asset Description		Vintage Code	Retire Qty	Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
0308-049004 LAFAYETTE CTY/HIGGINSVILLE				
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		URET	941	\$0.00
		Utility Account Total:	2,000	\$0.00
		Location Total:	15,213	\$0.00
		GL Account Total:	15,213	\$0.00
		Posted Retirements:	15,213	\$0.00
		Work Order Total:	15,213	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 801553</p> <p>Work Order Title: Repl 7625F 2-4P Windsor Miller Ph11</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0604</p> <p>Funding Project Desc: Main Replacement - ISRS (S)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 4960 Ft of 2in PL IP main and 2665 Ft of 4in PL IP main on E Jackson St, S County Line Rd, Spruce Ln, E Birch Dr, W Birch Dr, Willa Ln, Highland Dr, Lindy Ln, Elm St, and Oak St.</p> <p>Major Location: 0322-Windsor - Henry Co.</p> <p>Asset Location: 0322-037001 HENRY CTY/WINDSOR</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20638</p> <p>Department Description: Construction & Maintenance - Region 2B - Unio</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p>
<p>Status: in service</p>	
<p>Estimated Start Date: Aug 06, 2018 Estimated Completion Date: Sep 17, 2018 Estimated In-Service Date: Sep 17, 2018</p> <p>Notes: Abandon 14 Ft of 2in PL MP main, 1525 Ft of 2in ST MP main, and 6027 Ft of 3in ST MP main on S County Line Rd, Spruce Ln, E Birch Dr, W Birch Dr, Willa Ln, Highland Dr, Lindy Ln, Elm St, and Oak St. Uprate 848 Ft of 2in PL MP main on Highland Dr and Oak St. Total Service Tie-overs=72; Total Service Abandons=7; Total Service Uprates=6. This main is being replaced as part of FY18 bare steel replacement program.</p>	

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	6/19/2018
Engineering Review-Dist	Hoeferlin, Craig	\$0	6/21/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	6/22/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$7,371.46	\$7,371.46	\$0.00	\$0.00
376300-Mains - Plastic	\$502,880.96	\$622.37	\$503,503.33	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$641.25	\$0.00	\$641.25	\$0.00	\$0.00
Total Estimated Costs:	\$503,522.21	\$7,993.83	\$511,516.04	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location						
Utility Account						
Retirement Unit						
Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0322-037001 HENRY CTY/WINDSOI						
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$2,086.40	\$32.60	0	0	0	0
Contractor Work	\$201,777.99	\$372.75	0	0	0	0
Department Clearings	\$1,804.74	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$1,166.30	\$18.22	0	0	0	0
Overheads Capitalized - General	\$89,789.61	\$162.04	0	0	0	0
Payroll Taxes	\$317.13	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	14	0	0
Stores	\$9,177.49	\$3.60	4960	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$1,141.00	\$0.00	0	0	0	0
Contractor Work	\$120,201.34	\$0.00	0	0	0	0
Department Clearings	\$986.97	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$637.82	\$0.00	0	0	0	0
Overheads Capitalized - General	\$57,857.83	\$0.00	0	0	0	0
Payroll Taxes	\$173.43	\$0.00	0	0	0	0
Stores	\$15,762.91	\$0.00	2665	0	0	0
SubTotal Utility Account:	\$502,880.96	\$622.37	7,625.00	14.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 2"						
Contract Payroll	\$0.00	\$163.00	0	0	0	0
Contractor Work	\$0.00	\$51.00	0	0	0	0
Department Clearings	\$0.00	\$141.00	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$91.12	0	0	0	0
Overheads Capitalized - General	\$0.00	\$32.11	0	0	0	0
Payroll Taxes	\$0.00	\$24.78	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	1525	0	0
Mains-Steel 3"						
Contract Payroll	\$0.00	\$619.40	0	0	0	0
Contractor Work	\$0.00	\$3,402.25	0	0	0	0
Department Clearings	\$0.00	\$535.78	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$346.24	0	0	0	0
Overheads Capitalized - General	\$0.00	\$1,600.43	0	0	0	0
Payroll Taxes	\$0.00	\$94.15	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	6027	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0322-037001 HENRY CTY/WINDSOI						
376100-Mains - Steel						
Mains-Steel 3"						
Stores	\$0.00	\$270.20	0	0	0	0
SubTotal Utility Account:	\$0.00	\$7,371.46	0.00	7,552.00	0.00	0.00
380200-Services - Plastic & Copper						
Services-Plastic						
Contractor Work	\$450.00	\$0.00	0	0	0	0
Overheads Capitalized - General	\$191.25	\$0.00	0	0	0	0
SubTotal Utility Account:	\$641.25	\$0.00	0.00	0.00	0.00	0.00
SubTotal Location:	\$503,522.21	\$7,993.83	7,625.00	7,566.00	0.00	0.00
Total Unit Estimate:	\$503,522.21	\$7,993.83	7,625	7,566	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
CWIP Property Tax Type	MO-CWIP-Distribution Real
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** Work Order Retirements *****

Business Segment Asset Location Utility Account Retirement Unit Asset Description	GL Account	Activity Vintage Code	Retire Qty	Retirement Amount
Selected Retirements:				
Missouri West	101000::Gas Plant in Service			
0322-037001 HENRY CTY/WINDSOR				
376100-Mains - Steel				
Mains-Steel 2"				
OCR		URET	794	\$0.00
OCR		URET	341	\$0.00
OCR		URET	390	\$0.00

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit				
Asset Description		Vintage	Activity Code	Retire Qty Retirement Amount
Selected Retirements:				
Missouri West	101000::Gas Plant in Service			
0322-037001 HENRY CTY/WINDSOR				
376100-Mains - Steel				
Mains-Steel 3"				
OCR			URET	202 \$0.00
OCR			URET	504 \$0.00
OCR			URET	419 \$0.00
OCR			URET	814 \$0.00
OCR			URET	637 \$0.00
OCR			URET	3 \$0.00
OCR			URET	500 \$0.00
OCR			URET	1,138 \$0.00
OCR			URET	405 \$0.00
OCR			URET	105 \$0.00
OCR			URET	32 \$0.00
OCR			URET	330 \$0.00
OCR			URET	100 \$0.00
OCR			URET	389 \$0.00
OCR			URET	449 \$0.00
			Utility Account Total:	7,552 \$0.00
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR			URET	13 \$0.00
OCR			URET	1 \$0.00
			Utility Account Total:	14 \$0.00
			Location Total:	7,566 \$0.00
			GL Account Total:	7,566 \$0.00
			Selected Retirements:	7,566 \$0.00
			Work Order Total:	7,566 \$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 801554</p> <p>Work Order Title: Repl 11619F 2-4P Windsor BS Ph 12</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0604</p> <p>Funding Project Desc: Main Replacement - ISRS (S)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 7877 ft of 2in PL IP main and 3742 4in PL IP main.</p> <p>Major Location: 0322-Windsor - Henry Co.</p> <p>Asset Location: 0322-037001 HENRY CTY/WINDSOR</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20638</p> <p>Department Description: Construction & Maintenance - Region 2B - Unio</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
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Estimated Start Date: Sep 10, 2018 **Estimated Completion Date:** Oct 15, 2018 **Estimated In-Service Date:** Oct 15, 2018

Notes: On N Windsor St, S Windsor St, E Benton St, E Florence St, E Colorado St, Spring Valley Dr, Lakeview Dr, S County Line Rd, S Smith St, N Smith St, N Hudson St, S Hughes St, and N Hughes St. Abandon 82 ft of 4in PL IP main, 35 ft of 4in PL MP main, 105 of 2in ST IP main, 2377 ft of 2in ST MP main, 2661 of 3in ST MP main, 5053 ft of 4in ST IP main, 7351 ft of 4in ST MP main, and 455 ft of 6in ST MP main on N Windsor St, S Windsor St, E Benton St, E Florence St, E Colorado St, Spring Valley Dr, Lakeview Dr, S County Line Rd, S Smith St, N Smith St, N Hudson St, S Hughes St, N Hughes St, N Lawn St, alley N of E Benton St, alley N of E Florence St, alley N of E Jackson St, E Jackson St, alley W of S Hughes St and N of E Jackson St, North St, W Benton St, W Jackson St, and in the alley E of S Commercial St. Uprate 351 ft of 4in PL MP on S Windsor St. Total Service Tie-Over: 135 Total Service Replacements: 4 Total Service Abandons: 48 Total Service Unrates: 4 Part of

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	8/7/2018
Engineering Review-Dist	Hoeflerlin, Craig	\$0	8/20/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	8/21/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$8,113.45	\$8,113.45	\$0.00	\$0.00
376300-Mains - Plastic	\$850,034.73	\$254.89	\$850,289.62	\$0.00	\$0.00
380100-Services - Steel	\$0.00	\$716.06	\$716.06	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$6,890.96	\$0.00	\$6,890.96	\$0.00	\$0.00
Total Estimated Costs:	\$856,925.69	\$9,084.40	\$866,010.09	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0322-037001	HENRY CTY/WINDSOI								
	376300-Mains - Plastic								
	Mains-Plastic 2"								
	Contract Payroll			\$3,292.60	\$0.00	0	0	0	0
	Contractor Work			\$355,180.83	\$0.00	0	0	0	0
	Department Clearings			\$2,848.10	\$0.00	0	0	0	0
	Overheads Capitalized - Benefits			\$1,840.56	\$0.00	0	0	0	0
	Overheads Capitalized - General			\$157,782.65	\$0.00	0	0	0	0
	Payroll Taxes			\$500.48	\$0.00	0	0	0	0
	Stores			\$15,576.64	\$0.00	7877	0	0	0
	Mains-Plastic 4"								
	Contract Payroll			\$1,564.80	\$32.60	0	0	0	0
	Contractor Work			\$201,795.10	\$94.50	0	0	0	0
	Department Clearings			\$1,353.55	\$28.20	0	0	0	0
	Overheads Capitalized - Benefits			\$874.72	\$18.22	0	0	0	0
	Overheads Capitalized - General			\$92,222.79	\$52.44	0	0	0	0
	Payroll Taxes			\$237.85	\$4.96	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	117	0	0
	Stores			\$14,964.06	\$23.97	3742	0	0	0
	SubTotal Utility Account:			\$850,034.73	\$254.89	11,619.00	117.00	0.00	0.00
	376100-Mains - Steel								
	Mains-Steel 2"								
	Contract Payroll			\$0.00	\$163.00	0	0	0	0
	Contractor Work			\$0.00	\$63.75	0	0	0	0
	Department Clearings			\$0.00	\$141.00	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$91.12	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$37.53	0	0	0	0
	Payroll Taxes			\$0.00	\$24.78	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	2180	0	0
	Mains-Steel 3"								
	Contract Payroll			\$0.00	\$163.00	0	0	0	0
	Contractor Work			\$0.00	\$76.50	0	0	0	0
	Department Clearings			\$0.00	\$141.00	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$91.12	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$42.94	0	0	0	0
	Payroll Taxes			\$0.00	\$24.78	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	2661	0	0
	Mains-Steel 4"								
	Contract Payroll			\$0.00	\$847.60	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0322-037001	HENRY CTY/WINDSOI								
	376100-Mains - Steel								
	Mains-Steel 4"								
	Contractor Work			\$0.00	\$3,127.00	0	0	0	0
	Department Clearings			\$0.00	\$733.17	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$473.81	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$1,459.29	0	0	0	0
	Payroll Taxes			\$0.00	\$128.84	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	12404	0	0
	Stores			\$0.00	\$178.98	0	0	0	0
	Mains-Steel 6"								
	Contract Payroll			\$0.00	\$32.60	0	0	0	0
	Contractor Work			\$0.00	\$12.75	0	0	0	0
	Department Clearings			\$0.00	\$28.20	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$18.22	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$7.51	0	0	0	0
	Payroll Taxes			\$0.00	\$4.96	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	455	0	0
	SubTotal Utility Account:			\$0.00	\$8,113.45	0.00	17,700.00	0.00	0.00
	380200-Services - Plastic & Copper								
	Services-Plastic								
	Contractor Work			\$4,575.00	\$0.00	0	0	0	0
	Overheads Capitalized - General			\$2,055.20	\$0.00	0	0	0	0
	Stores			\$260.76	\$0.00	0	0	0	0
	SubTotal Utility Account:			\$6,890.96	\$0.00	0.00	0.00	0.00	0.00
	380100-Services - Steel								
	Services-Steel								
	Contractor Work			\$0.00	\$502.50	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$213.56	0	0	0	0
	SubTotal Utility Account:			\$0.00	\$716.06	0.00	0.00	0.00	0.00
	SubTotal Location:			\$856,925.69	\$9,084.40	11,619.00	17,817.00	0.00	0.00
	Total Unit Estimate:			\$856,925.69	\$9,084.40	11,619	17,817	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes

Work Order Authorization Information

***** Class Codes *****	
Class Code	Value
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** Work Order Retirements *****

Business Segment	GL Account	Vintage	Activity Code	Retire Qty	Retirement Amount
Asset Location					
Utility Account					
Retirement Unit					
Asset Description					

Selected Retirements:

Missouri West	101000::Gas Plant in Service				
0322-037001 HENRY CTY/WINDSOR					
376100-Mains - Steel					
Mains-Steel 2"					
OCR			URET	205	\$0.00
OCR			URET	1,363	\$0.00
OCR			URET	390	\$0.00
OCR			URET	117	\$0.00
OCR			URET	105	\$0.00
Mains-Steel 3"					
OCR			URET	1,670	\$0.00
OCR			URET	513	\$0.00
OCR			URET	105	\$0.00
OCR			URET	221	\$0.00
OCR			URET	100	\$0.00
OCR			URET	52	\$0.00
Mains-Steel 4"					
OCR			URET	40	\$0.00
OCR			URET	490	\$0.00
OCR			URET	584	\$0.00
OCR			URET	3,775	\$0.00
OCR			URET	192	\$0.00
OCR			URET	85	\$0.00
OCR			URET	716	\$0.00
OCR			URET	6,412	\$0.00
OCR			URET	110	\$0.00
Mains-Steel 6"					
OCR			URET	455	\$0.00
Utility Account Total:				17,700	\$0.00

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account				
Asset Location				Activity	
Utility Account				Vintage Code	Retire Qty
Retirement Unit					Retirement Amount
Asset Description					
Selected Retirements:					
Missouri West	101000::Gas Plant in Service				
0322-037001 HENRY CTY/WINDSOR					
376300-Mains - Plastic					
Mains-Plastic 4"					
OCR				URET	117
					\$0.00
				Utility Account Total:	117
					\$0.00
				Location Total:	17,817
					\$0.00
				GL Account Total:	17,817
					\$0.00
				Selected Retirements:	17,817
					\$0.00
				Work Order Total:	17,817
					\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 802255</p> <p>Work Order Title: Repl 3985F 2-4P 53rd & Swope Ph1D</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0599</p> <p>Funding Project Desc: Main Replacement - ISRS (N)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 2670 Ft. of 2 inch PL IP Main and 1315 Ft. of 4 inch PL IP on E 52rd St., Lister Ave., Elmwood Ave., Lawn Ave., and E 51st Ter.</p> <p>Major Location: 0401-KC/MO - Central</p> <p>Asset Location: 0401-043050 JACKSON CTY/KC</p>	<p>Company: Splre Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20648</p> <p>Department Description: Construction & Maintenance - Region 2A - Unio</p> <p>Budget Description: Replace cast iron main - CPI / prio</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
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Estimated Start Date: Jan 01, 2019 **Estimated Completion Date:** Jan 28, 2019 **Estimated In-Service Date:** Jan 28, 2019

Notes: Abandon 1033 Ft of 2 in ST LP Main, 625 Ft of 3 in ST IP Main, 448 Ft of 3 in ST LP Main, 1430 Ft of 4 in ST LP Main, and 1788 Ft of 6 in ST LP Main on the above mentioned streets. Total Service Tie-over =44; Total Service Abandoned = 3; Total Service Replace = 51. This main is being replaced as part of FY18 Bare Steel Replacement Program.

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	8/30/2018
Engineering Review-Dist	Hoeflerin, Craig	\$0	9/10/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	9/11/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$8,111.15	\$8,111.15	\$0.00	\$0.00
376300-Mains - Plastic	\$375,736.27	\$0.00	\$375,736.27	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$92,479.37	\$9,129.80	\$101,609.17	\$0.00	\$0.00
Total Estimated Costs:	\$468,215.64	\$17,240.95	\$485,456.59	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location						
Utility Account						
Retirement Unit						
Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC						
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$1,141.00	\$0.00	0	0	0	0
Contractor Work	\$163,444.34	\$0.00	0	0	0	0
Department Clearings	\$986.97	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$637.82	\$0.00	0	0	0	0
Overheads Capitalized - General	\$74,500.13	\$0.00	0	0	0	0
Payroll Taxes	\$173.43	\$0.00	0	0	0	0
Stores	\$11,678.26	\$0.00	2670	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$554.20	\$0.00	0	0	0	0
Contractor Work	\$79,718.67	\$0.00	0	0	0	0
Department Clearings	\$479.38	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$309.80	\$0.00	0	0	0	0
Overheads Capitalized - General	\$36,335.31	\$0.00	0	0	0	0
Payroll Taxes	\$84.24	\$0.00	0	0	0	0
Stores	\$5,692.72	\$0.00	1315	0	0	0
SubTotal Utility Account:	\$375,736.27	\$0.00	3,985.00	0.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 2"						
Contract Payroll	\$0.00	\$97.80	0	0	0	0
Contractor Work	\$0.00	\$51.00	0	0	0	0
Department Clearings	\$0.00	\$84.60	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$54.67	0	0	0	0
Overheads Capitalized - General	\$0.00	\$27.93	0	0	0	0
Payroll Taxes	\$0.00	\$14.87	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	1033	0	0
Mains-Steel 3"						
Contract Payroll	\$0.00	\$97.80	0	0	0	0
Contractor Work	\$0.00	\$2,337.75	0	0	0	0
Department Clearings	\$0.00	\$84.60	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$54.67	0	0	0	0
Overheads Capitalized - General	\$0.00	\$1,057.55	0	0	0	0
Payroll Taxes	\$0.00	\$14.87	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	1073	0	0
Stores	\$0.00	\$135.88	0	0	0	0
Mains-Steel 4"						
Contract Payroll	\$0.00	\$97.80	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050	JACKSON CTY/KC								
	376100-Mains - Steel								
	Mains-Steel 4"								
	Contractor Work			\$0.00	\$63.75	0	0	0	0
	Department Clearings			\$0.00	\$84.60	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$54.67	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$981.95	0	0	0	0
	Payroll Taxes			\$0.00	\$14.87	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	1430	0	0
	Stores			\$0.00	\$2,232.00	0	0	0	0
	Mains-Steel 6"								
	Contract Payroll			\$0.00	\$130.40	0	0	0	0
	Contractor Work			\$0.00	\$86.50	0	0	0	0
	Department Clearings			\$0.00	\$112.80	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$72.89	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$45.11	0	0	0	0
	Payroll Taxes			\$0.00	\$19.82	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	1788	0	0
	SubTotal Utility Account:			\$0.00	\$8,111.15	0.00	5,324.00	0.00	0.00
	380200-Services - Plastic & Copper								
	Services-Plastic								
	Contractor Work			\$61,631.25	\$6,406.88	0	0	0	0
	Overheads Capitalized - General			\$27,581.57	\$2,722.92	0	0	0	0
	Stores			\$3,266.55	\$0.00	0	0	0	0
	SubTotal Utility Account:			\$92,479.37	\$9,129.80	0.00	0.00	0.00	0.00
	SubTotal Location:			\$468,215.64	\$17,240.95	3,985.00	5,324.00	0.00	0.00
	Total Unit Estimate:			\$468,215.64	\$17,240.95	3,985	5,324	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit				
Asset Description		Vintage	Activity Code	Retire Qty Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant In Service			
0401-043050 JACKSON CTY/KC				
376100-Mains - Steel				
Mains-Steel 2"				
OCR			URET	315 \$0.00
OCR			URET	718 \$0.00
Mains-Steel 3"				
OCR			URET	625 \$0.00
OCR			URET	448 \$0.00
Mains-Steel 4"				
OCR			URET	75 \$0.00
OCR			URET	1,051 \$0.00
OCR			URET	304 \$0.00
Mains-Steel 6"				
OCR			URET	449 \$0.00
OCR			URET	1,339 \$0.00
			Utility Account Total:	5,324 \$0.00
			Location Total:	5,324 \$0.00
			GL Account Total:	5,324 \$0.00
			Posted Retirements:	5,324 \$0.00
			Work Order Total:	5,324 \$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 802217 Work Order Title: Repl 1930F 2-4P Higginsville Ph1 Wo Type Description: WO-Replacement Mains & Svcs MGE Work Order Group: Current Revision: 1 Funding Project: F0604 Funding Project Desc: Main Replacement - ISRS (S) Eligible for AFUDC yes Eligible for CPI: yes Reason Code: Strategic WO Description: Install 920 Ft of 2 in PL IP Main and 1010 Ft of 4 in PL IP Main on E 22nd St, Lipper Ave, E 21st St, and E 20th ST.</p>	<p>Company: Spire Missouri Inc. Business Segment: Missouri West Functional Class: Distribution Plant Department Code: 20638 Department Description: Construction & Maintenance - Region 2B - Unio Budget Description: Replace bare steel main - safety re Est. Annual Revenue: Reimbursement Type: None Retirement Type:</p>
<p>Major Location: 0308-Higginsville Asset Location: 0308-049004 LAFAYETTE CTY/HIGGINSVILLE</p>	<p>Status: In service</p>
<p>Estimated Start Date: Dec 03, 2018 Estimated Completion Date: Dec 31, 2018 Estimated In-Service Date: Dec 31, 2018</p>	
<p>Notes: Abandon 5 Ft of 2 in PL MP Main, 150 Ft of 4 in PL MP Main, 2106 Ft of 2 in ST MP Main, 20 Ft of 2 in ST TF Main, 25 Ft of 4 in ST MP Main, 5 Ft of 6 in ST MP Main at the above locations. Upgrade 943 Ft of 2 in PL Main on E 21st St. Service Transfers = 21, Service Replacements = 1, Service Upgrades = 2, Service Abandons = 1. This main is being replaced as part of the Bare Steel Replacement Program.</p>	

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	9/12/2018
Engineering Review-Dist	Hoeflerlin, Craig	\$0	9/18/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	9/18/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$8,076.49	\$8,076.49	\$0.00	\$0.00
376300-Mains - Plastic	\$129,940.47	\$467.54	\$130,408.01	\$0.00	\$0.00
380100-Services - Steel	\$0.00	\$895.09	\$895.09	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$8,071.20	\$0.00	\$8,071.20	\$0.00	\$0.00
Total Estimated Costs:	\$138,011.67	\$9,439.12	\$147,450.79	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location						
Utility Account						
Retirement Unit						
Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0308-049004 LAFAYETTE CTY/HIGC						
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$903.51	\$32.60	0	0	0	0
Contractor Work	\$39,885.26	\$192.75	0	0	0	0
Department Clearings	\$781.54	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$505.06	\$18.22	0	0	0	0
Overheads Capitalized - General	\$18,456.14	\$84.77	0	0	0	0
Payroll Taxes	\$137.33	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	5	0	0
Stores	\$3,404.89	\$1.80	920	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$423.80	\$32.60	0	0	0	0
Contractor Work	\$41,959.48	\$12.75	0	0	0	0
Department Clearings	\$366.59	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$236.90	\$18.22	0	0	0	0
Overheads Capitalized - General	\$19,337.90	\$7.51	0	0	0	0
Payroll Taxes	\$64.42	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	150	0	0
Stores	\$3,477.65	\$0.00	1010	0	0	0
SubTotal Utility Account:	\$129,940.47	\$467.54	1,930.00	155.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 2"						
Contract Payroll	\$0.00	\$97.80	0	0	0	0
Contractor Work	\$0.00	\$4,988.50	0	0	0	0
Department Clearings	\$0.00	\$84.60	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$54.67	0	0	0	0
Overheads Capitalized - General	\$0.00	\$2,275.85	0	0	0	0
Payroll Taxes	\$0.00	\$14.87	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	2126	0	0
Stores	\$0.00	\$351.72	0	0	0	0
Mains-Steel 4"						
Contract Payroll	\$0.00	\$32.60	0	0	0	0
Contractor Work	\$0.00	\$12.75	0	0	0	0
Department Clearings	\$0.00	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$18.22	0	0	0	0
Overheads Capitalized - General	\$0.00	\$7.51	0	0	0	0
Payroll Taxes	\$0.00	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	25	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0308-049004 LAFAYETTE CTY/HIGC						
376100-Mains - Steel						
Mains-Steel 6"						
Contract Payroll	\$0.00	\$32.60	0	0	0	0
Contractor Work	\$0.00	\$12.75	0	0	0	0
Department Clearings	\$0.00	\$28.20	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$18.22	0	0	0	0
Overheads Capitalized - General	\$0.00	\$7.51	0	0	0	0
Payroll Taxes	\$0.00	\$4.96	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	5	0	0
SubTotal Utility Account:	\$0.00	\$8,076.49	0.00	2,156.00	0.00	0.00
380200-Services - Plastic & Copper						
Services-Plastic						
Contractor Work	\$5,343.75	\$0.00	0	0	0	0
Overheads Capitalized - General	\$2,407.20	\$0.00	0	0	0	0
Stores	\$320.25	\$0.00	0	0	0	0
SubTotal Utility Account:	\$8,071.20	\$0.00	0.00	0.00	0.00	0.00
380100-Services - Steel						
Services-Steel						
Contractor Work	\$0.00	\$628.13	0	0	0	0
Overheads Capitalized - General	\$0.00	\$266.96	0	0	0	0
SubTotal Utility Account:	\$0.00	\$895.09	0.00	0.00	0.00	0.00
SubTotal Location:	\$138,011.67	\$9,439.12	1,930.00	2,311.00	0.00	0.00
Total Unit Estimate:	\$138,011.67	\$9,439.12	1,930	2,311	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
CWIP Property Tax Type	MO-CWIP-Distribution Real
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account	Activity		
Asset Location		Code	Retire Qty	Retirement Amount
Utility Account				
Retirement Unit		Vintage		
Asset Description				
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
0308-049004	LAFAYETTE CTY/HIGGINSVILLE			
376100-Mains - Steel				
Mains-Steel 2"				
OCR		URET	315	\$0.00
OCR		URET	566	\$0.00
OCR		URET	20	\$0.00
OCR		URET	245	\$0.00
OCR		URET	470	\$0.00
OCR		URET	92	\$0.00
OCR		URET	418	\$0.00
Mains-Steel 4"				
OCR		URET	25	\$0.00
Mains-Steel 6"				
OCR		URET	5	\$0.00
		Utility Account Total:	2,156	\$0.00
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		URET	5	\$0.00
Mains-Plastic 4"				
OCR		URET	150	\$0.00
		Utility Account Total:	155	\$0.00
		Location Total:	2,311	\$0.00
		GL Account Total:	2,311	\$0.00
		Posted Retirements:	2,311	\$0.00
		Work Order Total:	2,311	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 802175</p> <p>Work Order Title: Repl 4490F 2-4P 8th & Hardesty Ph2C</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0599</p> <p>Funding Project Desc: Main Replacement - ISRS (N)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 3975 Ft of 2in PL IP main, 505 Ft of 2in PL LP main and 10 Ft of 4in PL IP main on Kensington Ave, Spruce Ave, Anderson Ave, and Smart Ave.</p> <p>Major Location: 0401-KC/MO - Central</p> <p>Asset Location: 0401-043050 JACKSON CTY/KC</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20648</p> <p>Department Description: Construction & Maintenance - Region 2A - Unio</p> <p>Budget Description: Replace cast iron main - CPI / prio</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
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Estimated Start Date: Dec 03, 2018 **Estimated Completion Date:** Dec 31, 2018 **Estimated In-Service Date:** Dec 31, 2018

Notes: Abandon 855 Ft of 12in CI LP main, 303 Ft of 8in CI LP main, 440 Ft of 6in CI LP main, 3756 Ft of 4in CI LP main, 18 Ft of 4in PL LP main, 1442 Ft of 4in ST LP main, and 85 Ft of 2in ST LP main on St John Ave, Kensington Ave, Spruce Ave, Anderson Ave, Smart Ave, and Thompson Ave. Upgrade 1260 Ft of 4in PL LP main and 505 Ft of 2in PL LP main to IP on Kensington Ave and Spruce Ave. Total Service Tie-overs=122; Total Service Replacements=22; Total Service Upgrades=36; Total Service Abandons=18. This main is being replaced as part of the Cast Iron Replacement Program.

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	9/12/2018
Engineering Review-Dist S	Hoeflerlin, Craig	\$0	9/18/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	9/18/2018

**** Unit Estimate ****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$792.91	\$792.91	\$0.00	\$0.00
376200-Mains - Cast Iron	\$0.00	\$34,268.71	\$34,268.71	\$0.00	\$0.00
376300-Mains - Plastic	\$496,811.57	\$2,289.46	\$499,101.03	\$0.00	\$0.00
380100-Services - Steel	\$0.00	\$2,541.54	\$2,541.54	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$24,706.72	\$0.00	\$24,706.72	\$0.00	\$0.00
Total Estimated Costs:	\$521,518.29	\$39,892.62	\$561,410.91	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC									
376200-Mains - Cast Iron									
Mains-Cast Iron 12"									
	Contract Payroll			\$0.00	\$65.20	0	0	0	0
	Contractor Work			\$0.00	\$10,165.24	0	0	0	0
	Department Clearings			\$0.00	\$56.40	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$36.45	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$4,480.91	0	0	0	0
	Payroll Taxes			\$0.00	\$9.91	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	855	0	0
	Stores			\$0.00	\$368.26	0	0	0	0
Mains-Cast Iron 4"									
	Contract Payroll			\$0.00	\$195.60	0	0	0	0
	Contractor Work			\$0.00	\$4,871.84	0	0	0	0
	Department Clearings			\$0.00	\$169.19	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$109.34	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$3,176.05	0	0	0	0
	Payroll Taxes			\$0.00	\$29.73	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	4512	0	0
	Stores			\$0.00	\$2,571.76	0	0	0	0
Mains-Cast Iron 6"									
	Contract Payroll			\$0.00	\$32.60	0	0	0	0
	Contractor Work			\$0.00	\$5,326.33	0	0	0	0
	Department Clearings			\$0.00	\$28.20	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$18.22	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$2,298.81	0	0	0	0
	Payroll Taxes			\$0.00	\$4.96	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	440	0	0
	Stores			\$0.00	\$77.73	0	0	0	0
Mains-Cast Iron 8"									
	Contract Payroll			\$0.00	\$32.60	0	0	0	0
	Contractor Work			\$0.00	\$63.10	0	0	0	0
	Department Clearings			\$0.00	\$28.20	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$18.22	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$28.90	0	0	0	0
	Payroll Taxes			\$0.00	\$4.96	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	303	0	0
	SubTotal Utility Account:			\$0.00	\$34,268.71	0.00	6,110.00	0.00	0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC									
376300-Mains - Plastic									
Mains-Plastic 2"									
	Contract Payroll			\$2,638.38	\$0.00	0	0	0	0
	Contractor Work			\$317,472.54	\$0.00	0	0	0	0
	Department Clearings			\$2,282.20	\$0.00	0	0	0	0
	Overheads Capitalized - Benefits			\$1,474.85	\$0.00	0	0	0	0
	Overheads Capitalized - General			\$143,125.67	\$0.00	0	0	0	0
	Payroll Taxes			\$401.03	\$0.00	0	0	0	0
	Stores			\$18,896.43	\$0.00	4480	0	0	0
Mains-Plastic 4"									
	Contract Payroll			\$2,027.16	\$32.60	0	0	0	0
	Contractor Work			\$2,961.78	\$1,514.28	0	0	0	0
	Department Clearings			\$1,753.49	\$28.20	0	0	0	0
	Overheads Capitalized - Benefits			\$1,133.18	\$18.22	0	0	0	0
	Overheads Capitalized - General			\$1,671.30	\$659.24	0	0	0	0
	Payroll Taxes			\$308.13	\$4.96	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	18	0	0
	Stores			\$665.43	\$31.96	10	0	0	0
	SubTotal Utility Account:			\$496,811.57	\$2,289.46	4,490.00	18.00	0.00	0.00
376100-Mains - Steel									
Mains-Steel 2"									
	Contract Payroll			\$0.00	\$32.60	0	0	0	0
	Contractor Work			\$0.00	\$41.64	0	0	0	0
	Department Clearings			\$0.00	\$28.20	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$18.22	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$19.78	0	0	0	0
	Payroll Taxes			\$0.00	\$4.96	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	85	0	0
Mains-Steel 4"									
	Contract Payroll			\$0.00	\$97.80	0	0	0	0
	Contractor Work			\$0.00	\$273.20	0	0	0	0
	Department Clearings			\$0.00	\$84.60	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$54.67	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$122.37	0	0	0	0
	Payroll Taxes			\$0.00	\$14.87	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	1442	0	0
	SubTotal Utility Account:			\$0.00	\$792.91	0.00	1,527.00	0.00	0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC									
380200-Services - Plastic & Copper									
Services-Plastic									
	Contractor Work			\$15,928.95	\$0.00	0	0	0	0
	Overheads Capitalized - General			\$7,368.67	\$0.00	0	0	0	0
	Stores			\$1,409.10	\$0.00	0	0	0	0
	SubTotal Utility Account:			\$24,706.72	\$0.00	0.00	0.00	0.00	0.00
380100-Services - Steel									
Services-Steel									
	Contractor Work			\$0.00	\$1,783.54	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$758.00	0	0	0	0
	SubTotal Utility Account:			\$0.00	\$2,541.54	0.00	0.00	0.00	0.00
	SubTotal Location:			\$521,518.29	\$39,892.62	4,490.00	7,655.00	0.00	0.00
	Total Unit Estimate:			\$521,518.29	\$39,892.62	4,490	7,655	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	01 - Cast Iron Strategic Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** Work Order Retirements *****

Business Segment	GL Account	Asset Location	Utility Account	Retirement Unit	Asset Description	Activity Vintage Code	Retire Qty	Retirement Amount
Posted Retirements:								
Missouri West	101000::Gas Plant in Service							
0401-043050 JACKSON CTY/KC								
376100-Mains - Steel								
		Mains-Steel 2"						
		OCR			URET	85	\$0.00	
		Mains-Steel 4"						
		OCR			URET	65	\$0.00	

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit		Activity		
Asset Description		Vintage Code	Retire Qty	Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
0401-043050 JACKSON CTY/KC				
376100-Mains - Steel				
Mains-Steel 4"				
OCR		URET	1,377	\$0.00
		Utility Account Total:	1,527	\$0.00
376200-Mains - Cast Iron				
Mains-Cast Iron 12"				
OCR		URET	855	\$0.00
Mains-Cast Iron 4"				
OCR		URET	2,446	\$0.00
OCR		URET	382	\$0.00
OCR		URET	1,130	\$0.00
OCR		URET	554	\$0.00
Mains-Cast Iron 6"				
OCR		URET	440	\$0.00
Mains-Cast Iron 8"				
OCR		URET	296	\$0.00
OCR		URET	2	\$0.00
OCR		URET	5	\$0.00
		Utility Account Total:	6,110	\$0.00
376300-Mains - Plastic				
Mains-Plastic 4"				
OCR		URET	8	\$0.00
OCR		URET	10	\$0.00
		Utility Account Total:	18	\$0.00
		Location Total:	7,655	\$0.00
		GL Account Total:	7,655	\$0.00
		Posted Retirements:	7,655	\$0.00
		Work Order Total:	7,655	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 802320 Work Order Title: Repl 8855F 2-4-6P KC IP Strat Rte 3 Wo Type Description: WO-Replacement Mains & Svcs MGE Work Order Group: Current Revision: 1 Funding Project: F0599 Funding Project Desc: Main Replacement - ISRS (N) Eligible for AFUDC yes Eligible for CPI: yes Reason Code: Strategic WO Description: Install 7420 Ft of 6in PL IP main, 1375 Ft of 4in PL IPmain, and 60 Ft of 2in PL IP main on E 43rd St, Benton Blvd, BrushCreek Parkway, and Cleveland Ave.</p> <p>Major Location: 0401-KC/MO - Central Asset Location: 0401-043050 JACKSON CTY/KC</p>	<p>Company: Spire Missouri Inc. Business Segment: Missouri West Functional Class: Distribution Plant Department Code: 20648 Department Description: Construction & Maintenance - Region 2A - Unio Budget Description: Replace cast iron main - CPI / prio Est. Annual Revenue: Reimbursement Type: None Retirement Type:</p> <p style="text-align: right;">Status: in service</p>
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Estimated Start Date: Jan 07, 2019 **Estimated Completion Date:** Mar 25, 2019 **Estimated In-Service Date:** Mar 25, 2019
Notes: KC IP Strategic Header Route 3. Abandon 3843 Ft of 8in Bare ST IP main, 31 Ft of 4in BareST IP main, 5 Ft of 8in Coated ST IP main, 68 Ft of 4in PL IPmain, and 25 Ft of 2in PL IP main. Total Service Tie-Overs: 6, Total Service Replacements: 1, Total Service Abandonment: 3. This main is being replaced as part of the Bare Steel Replacement Program.

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	10/31/2018
Engineering Review-Dist	Hoeflerlin, Craig	\$0	11/5/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	11/5/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$35,207.95	\$35,207.95	\$0.00	\$0.00
376300-Mains - Plastic	\$811,518.90	\$2,540.14	\$814,059.04	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$1,743.20	\$202.26	\$1,945.46	\$0.00	\$0.00
Total Estimated Costs:	\$813,262.10	\$37,950.35	\$851,212.45	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC						
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$35.77	\$35.77	0	0	0	0
Contractor Work	\$2,224.22	\$1,272.75	0	0	0	0
Department Clearings	\$52.58	\$52.58	0	0	0	0
Overheads Capitalized - Benefits	\$31.48	\$31.48	0	0	0	0
Overheads Capitalized - General	\$1,785.87	\$787.18	0	0	0	0
Payroll Taxes	\$5.44	\$5.44	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	25	0	0
Stores	\$697.98	\$12.25	60	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$643.86	\$35.77	0	0	0	0
Contractor Work	\$53,077.17	\$100.50	0	0	0	0
Department Clearings	\$946.47	\$52.58	0	0	0	0
Overheads Capitalized - Benefits	\$566.60	\$31.48	0	0	0	0
Overheads Capitalized - General	\$35,686.29	\$84.44	0	0	0	0
Payroll Taxes	\$97.87	\$5.44	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	68	0	0
Stores	\$5,326.79	\$32.48	1375	0	0	0
Mains-Plastic 6"						
Contract Payroll	\$3,398.15	\$0.00	0	0	0	0
Contractor Work	\$374,948.93	\$0.00	0	0	0	0
Department Clearings	\$4,995.28	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$2,990.37	\$0.00	0	0	0	0
Overheads Capitalized - General	\$264,822.70	\$0.00	0	0	0	0
Payroll Taxes	\$516.52	\$0.00	0	0	0	0
Stores	\$58,668.56	\$0.00	7420	0	0	0
SubTotal Utility Account:	\$811,518.90	\$2,540.14	8,855.00	93.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 4"						
Contract Payroll	\$0.00	\$35.77	0	0	0	0
Contractor Work	\$0.00	\$12.75	0	0	0	0
Department Clearings	\$0.00	\$52.58	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$31.48	0	0	0	0
Overheads Capitalized - General	\$0.00	\$11.10	0	0	0	0
Payroll Taxes	\$0.00	\$5.44	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	31	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050	JACKSON CTY/KC								
	376100-Mains - Steel								
	Mains-Steel 8"								
	Contract Payroll			\$0.00	\$930.02	0	0	0	0
	Contractor Work			\$0.00	\$12,346.75	0	0	0	0
	Department Clearings			\$0.00	\$1,367.13	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$818.42	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$12,102.89	0	0	0	0
	Payroll Taxes			\$0.00	\$141.36	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	3848	0	0
	Stores			\$0.00	\$7,352.26	0	0	0	0
	SubTotal Utility Account:			\$0.00	\$35,207.95	0.00	3,879.00	0.00	0.00
	380200-Services - Plastic & Copper								
	Services-Plastic								
	Contractor Work			\$1,068.75	\$125.63	0	0	0	0
	Overheads Capitalized - General			\$660.47	\$76.63	0	0	0	0
	Stores			\$13.98	\$0.00	0	0	0	0
	SubTotal Utility Account:			\$1,743.20	\$202.26	0.00	0.00	0.00	0.00
	SubTotal Location:			\$813,262.10	\$37,950.35	8,855.00	3,972.00	0.00	0.00
	Total Unit Estimate:			\$813,262.10	\$37,950.35	8,855	3,972	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	07 - Cast Iron or Bare Steel Replacement - Cor
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** Work Order Retirements *****

Business Segment	GL Account	Activity	Retire Qty	Retirement Amount
Asset Location	Utility Account	Vintage Code		
Retirement Unit	Asset Description			
Selected Retirements:				
Missouri West	101000::Gas Plant In Service			
0401-043050	JACKSON CTY/KC			
376100-Mains - Steel				
Mains-Steel 4"				

Work Order Authorization Information

***** Work Order Retirements *****				
Business Segment	GL Account	URET		\$0.00
Asset Location				
Utility Account				
Retirement Unit		Activity Code	Retire Qty	Retirement Amount
Asset Description	Vintage			
OCR		URET	5	\$0.00
OCR		URET	3,843	\$0.00
		Utility Account Total:	3,879	\$0.00
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		URET	25	\$0.00
Mains-Plastic 4"				
OCR		URET	21	\$0.00
OCR		URET	47	\$0.00
		Utility Account Total:	93	\$0.00
		Location Total:	3,972	\$0.00
		GL Account Total:	3,972	\$0.00
		Selected Retirements:	3,972	\$0.00
		Work Order Total:	3,972	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 802386 Work Order Title: Repl 2025F 2-4P 24th Sterling Ph B Wo Type Description: WO-Replacement Mains & Svcs MGE Work Order Group: Current Revision: 1 Funding Project: F0604 Funding Project Desc: Main Replacement - ISRS (S) Eligible for AFUDC: yes Eligible for CPI: yes Reason Code: Strategic</p>	<p>Company: Spire Missouri Inc. Business Segment: Missouri West Functional Class: Distribution Plant Department Code: 20638 Department Description: Construction & Maintenance - Region 2B - Unio Budget Description: Replace bare steel main - safety re Est. Annual Revenue: Reimbursement Type: None Retirement Type:</p>
<p>WO Description: Install 475 Ft of 2in PL IP main and 1550 Ft of 4" PL IP main on E 20th St S, Harvard Ave, S Harris Ave, and E 19TH Ter S.</p>	
<p>Major Location: 0201-Independence Asset Location: 0201-043001 JACKSON CTY/INDEPENDENCE</p>	<p>Status: in service</p>

Estimated Start Date: Feb 01, 2019 **Estimated Completion Date:** May 01, 2019 **Estimated In-Service Date:** May 01, 2019

Notes: Abandon 1388 Ft of 8in ST IP main, 2 Ft of 4in PL IP main, 117 Ft of 4in PL LP main, 527 Ft of 2in ST LP main, and 799 Ft of 4in ST LP main on E 20th St S, Harvard Ave, S Harris Ave, and E 19TH Ter S. Uprate 657 Ft of 4" PL LP main on E 20th St S & S Sterling Ave. Total Service Tie-overs=34; Total Service Replacements= 4; Total Service Abandons=1; Total Service Uprates=6. This main is being replaced as part of the Bare Steel Replacement Program.

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	11/28/2018
Engineering Review-Dist 5	Hoeflerlin, Craig	\$0	11/30/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	11/30/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$5,925.61	\$5,925.61	\$0.00	\$0.00
376300-Mains - Plastic	\$213,207.88	\$15,235.47	\$228,443.35	\$0.00	\$0.00
380100-Services - Steel	\$0.00	\$522.09	\$522.09	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$5,374.76	\$0.00	\$5,374.76	\$0.00	\$0.00
Total Estimated Costs:	\$218,582.64	\$21,683.17	\$240,265.81	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location

Utility Account

Retirement Unit

Est. Chg Type

Addition Dollars

Retirement Dollars

Add Qty

Retire Qty

Add Hrs

Retire Hrs

0201-043001 JACKSON CTY//INDEP

376300-Mains - Plastic

Mains-Plastic 2"

Contract Payroll	\$357.70	\$0.00	0	0	0	0
Contractor Work	\$25,583.41	\$5,257.62	0	0	0	0
Department Clearings	\$525.82	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$314.78	\$0.00	0	0	0	0
Overheads Capitalized - General	\$16,652.09	\$4,549.89	0	0	0	0
Payroll Taxes	\$54.37	\$0.00	0	0	0	0
Stores	\$1,660.56	\$2,201.21	715	0	0	0

Mains-Plastic 4"

Contract Payroll	\$608.09	\$35.77	0	0	0	0
Contractor Work	\$95,569.09	\$1,883.72	0	0	0	0
Department Clearings	\$893.89	\$52.58	0	0	0	0
Overheads Capitalized - Benefits	\$535.12	\$31.48	0	0	0	0
Overheads Capitalized - General	\$62,902.87	\$1,177.16	0	0	0	0
Payroll Taxes	\$92.43	\$5.44	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	119	0	0
Stores	\$7,457.66	\$40.60	1309	0	0	0

SubTotal Utility Account:

\$213,207.88	\$15,235.47	2,024.00	119.00	0.00	0.00
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376100-Mains - Steel

Mains-Steel 12"

Retirement Value	\$0.00	\$0.00	0	18	0	0
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Mains-Steel 2"

Contract Payroll	\$0.00	\$35.77	0	0	0	0
Contractor Work	\$0.00	\$150.22	0	0	0	0
Department Clearings	\$0.00	\$52.58	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$31.48	0	0	0	0
Overheads Capitalized - General	\$0.00	\$94.96	0	0	0	0
Payroll Taxes	\$0.00	\$5.44	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	527	0	0

Mains-Steel 4"

Contract Payroll	\$0.00	\$35.77	0	0	0	0
Contractor Work	\$0.00	\$236.06	0	0	0	0
Department Clearings	\$0.00	\$52.58	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$31.48	0	0	0	0
Overheads Capitalized - General	\$0.00	\$147.32	0	0	0	0
Payroll Taxes	\$0.00	\$5.44	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	799	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location						
Utility Account						
Retirement Unit						
Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0201-043001 JACKSON CTY//INDEP						
376100-Mains - Steel						
Mains-Steel 8"						
Contract Payroll	\$0.00	\$679.63	0	0	0	0
Contractor Work	\$0.00	\$483.92	0	0	0	0
Department Clearings	\$0.00	\$999.06	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$598.07	0	0	0	0
Overheads Capitalized - General	\$0.00	\$1,049.53	0	0	0	0
Payroll Taxes	\$0.00	\$103.30	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	1388	0	0
Stores	\$0.00	\$1,133.00	0	0	0	0
SubTotal Utility Account:	\$0.00	\$5,925.61	0.00	2,732.00	0.00	0.00
380200-Services - Plastic & Copper						
Services-Plastic						
Contractor Work	\$3,066.12	\$0.00	0	0	0	0
Overheads Capitalized - General	\$2,036.40	\$0.00	0	0	0	0
Stores	\$272.24	\$0.00	0	0	0	0
SubTotal Utility Account:	\$5,374.76	\$0.00	0.00	0.00	0.00	0.00
380100-Services - Steel						
Services-Steel						
Contractor Work	\$0.00	\$324.28	0	0	0	0
Overheads Capitalized - General	\$0.00	\$197.81	0	0	0	0
SubTotal Utility Account:	\$0.00	\$522.09	0.00	0.00	0.00	0.00
SubTotal Location:	\$218,582.64	\$21,683.17	2,024.00	2,851.00	0.00	0.00
Total Unit Estimate:	\$218,582.64	\$21,683.17	2,024	2,851	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

Work Order Authorization Information

***** Work Order Retirements *****						
Business Segment	GL Account					
Asset Location						
Utility Account						
Retirement Unit						
Asset Description	Vintage	Activity Code	Retire Qty	Retirement Amount		
Posted Retirements:						
Missouri West	101000::Gas Plant in Service					
0201-043001 JACKSON CTY/INDEPENDENCE						
376100-Mains - Steel						
Mains-Steel 12"						
OCR		URET	18	\$0.00		
Mains-Steel 2"						
OCR		URET	362	\$0.00		
OCR		URET	20	\$0.00		
OCR		URET	145	\$0.00		
Mains-Steel 4"						
OCR		URET	319	\$0.00		
OCR		URET	480	\$0.00		
Mains-Steel 8"						
OCR		URET	908	\$0.00		
OCR		URET	480	\$0.00		
				Utility Account Total:	2,732	\$0.00
376300-Mains - Plastic						
Mains-Plastic 4"						
OCR		URET	1	\$0.00		
OCR		URET	2	\$0.00		
OCR		URET	2	\$0.00		
OCR		URET	114	\$0.00		
				Utility Account Total:	119	\$0.00
				Location Total:	2,851	\$0.00
				GL Account Total:	2,851	\$0.00
				Posted Retirements:	2,851	\$0.00
				Work Order Total:	2,851	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 802352</p> <p>Work Order Title: Repl 1125F 2P Pennell & Hodges</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0572</p> <p>Funding Project Desc: Main Replacement - ISRS (SW)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: System Integrity</p> <p>WO Description: Install ~1125 Ft of 2 in PL IP Main at Sheridan Ave and Hodges Dr due to leaking valve 1513-135N in Carl Junction.</p> <p>Major Location: 0513-Carl Junction</p> <p>Asset Location: 0513-044020 JASPER CTY/CARL JUNCTION</p> <p>Estimated Start Date: Mar 04, 2019 Estimated Completion Date: Mar 22, 2019 Estimated In-Service Date: Mar 22, 2019</p> <p>Notes: Abandon ~1171 Ft of 2 in ST IP Main in Alley between Pennell Stand Sheridan Ave, W of Hodges Dr in Carl Junction. Total Service Tie-Overs: 9. ISRS Recoverable due to vintage of pipe.</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20921</p> <p>Department Description: Region 2B - SW Missouri - Distribution - Union</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: in service</p>
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Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	2/21/2019
Engineering Review-Dist	Hoeferlin, Craig	\$0	3/10/2019
VP Field Operations-MGE	Goodson, Timothy	\$1,000,000	3/11/2019

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
376300-Mains - Plastic	\$49,532.33	\$595.51	\$50,127.84	\$0.00	\$0.00
Total Estimated Costs:	\$49,532.33	\$595.51	\$50,127.84	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0513-044020 JASPER CTY/CARL JL									
376300-Mains - Plastic									
Mains-Plastic 2"									
	Contract Payroll			\$1,645.42	\$71.54	0	0	0	0
	Contractor Work			\$25,556.14	\$210.14	0	0	0	0
	Department Clearings			\$2,418.77	\$105.16	0	0	0	0
	Overheads Capitalized - Benefits			\$1,447.97	\$62.96	0	0	0	0
	Overheads Capitalized - General			\$16,678.74	\$134.84	0	0	0	0
	Payroll Taxes			\$250.10	\$10.87	0	0	0	0
	Stores			\$1,535.19	\$0.00	1125	0	0	0
	SubTotal Utility Account:			\$49,532.33	\$595.51	1,125.00	0.00	0.00	0.00
376100-Mains - Steel									
Mains-Steel 2"									
	Retirement Value			\$0.00	\$0.00	0	1171	0	0
	SubTotal Utility Account:			\$0.00	\$0.00	0.00	1,171.00	0.00	0.00
	SubTotal Location:			\$49,532.33	\$595.51	1,125.00	1,171.00	0.00	0.00
	Total Unit Estimate:			\$49,532.33	\$595.51	1,125	1,171	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	08 - Cast Iron or Bare Steel Replacement - Lea
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** Work Order Retirements *****

Business Segment	GL Account	Asset Location	Utility Account	Retirement Unit	Asset Description	Vintage	Activity Code	Retire Qty	Retirement Amount
Selected Retirements:									
Missouri West	101000::Gas Plant in Service	0513-044020	JASPER CTY/CARL JUNCTION	376100-Mains - Steel	Mains-Steel 2"				
		OCR					URET	273	\$0.00

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account	URET Activity	Retire Qty	Retirement Amount
Asset Location				
Utility Account				
Retirement Unit		Vintage		
Asset Description		Code		
OCR			252	\$0.00
OCR		URET	436	\$0.00
Utility Account Total:			1,171	\$0.00
Location Total:			1,171	\$0.00
GL Account Total:			1,171	\$0.00
Selected Retirements:			1,171	\$0.00
Work Order Total:			1,171	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 802703 Work Order Title: Reloc 20F 2P 10201 Linwood Ct RkCrk Wo Type Description: WO-Relocation Mains MGE Work Order Group: Current Revision: 1 Funding Project: F0578 Funding Project Desc: Street & Highway Relocates ISRS (S) Eligible for AFUDC yes: Eligible for CPI: yes Reason Code: Government Request WO Description: Install ~20 Ft of 2in PL IP Main. Rock Creek at 10201 Linwood Ct</p>	<p>Company: Spire Missouri Inc. Business Segment: Missouri West Functional Class: Distribution Plant Department Code: 20638 Department Description: Construction & Maintenance - Region 2B - Unio Budget Description: Street & highway relocates Est. Annual Revenue: Reimbursement Type: None Retirement Type:</p>
<p>Major Location: 0201-Independence Asset Location: 0201-043001 JACKSON CTY/INDEPENDENCE</p>	<p>Status: in service</p>
<p>Estimated Start Date: May 27, 2019 Estimated Completion Date: May 31, 2019 Estimated In-Service Date: May 31, 2019</p>	
<p>Notes: Dog leg 5' under the proposed storm sewer for 10'. Abandon ~10 Ft of 2in PL IP Main. ISRS recoverable MRELO due to Civic Improvement.</p>	

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	4/10/2019
Engineering Review-Dist 5	Hoeflerin, Craig	\$0	4/12/2019
VP Field Operations-MGE	Goodson, Timothy	\$1,000,000	4/15/2019

***** Unit Estimate *****					
Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376300-Mains - Plastic	\$12,772.81	\$4,267.58	\$17,040.39	\$0.00	\$0.00
Total Estimated Costs:	\$12,772.81	\$4,267.58	\$17,040.39	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location

Utility Account

Retirement Unit

Est. Chg Type

Addition Dollars

Retirement Dollars

Add Qty

Retire Qty

Add Hrs

Retire Hrs

0201-043001 JACKSON CTY/INDEP

376300-Mains - Plastic

Mains-Plastic 2"

Contract Payroll	\$572.32	\$357.70	0	0	0	0
Contractor Work	\$6,492.05	\$1,851.95	0	0	0	0
Department Clearings	\$841.31	\$525.82	0	0	0	0
Overheads Capitalized - Benefits	\$503.64	\$314.78	0	0	0	0
Overheads Capitalized - General	\$4,113.07	\$1,162.96	0	0	0	0
Payroll Taxes	\$86.99	\$54.37	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	10	0	0
Stores	\$163.43	\$0.00	20	0	0	0

SubTotal Utility Account:	\$12,772.81	\$4,267.58	20.00	10.00	0.00	0.00
SubTotal Location:	\$12,772.81	\$4,267.58	20.00	10.00	0.00	0.00
Total Unit Estimate:	\$12,772.81	\$4,267.58	20	10	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	09 - Facility Relocation due to Civic Improve
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** Work Order Retirements *****

Business Segment

GL Account

Asset Location

Utility Account

Retirement Unit

Asset Description

Activity

Vintage Code

Retire Qty

Retirement Amount

Posted Retirements:

Missouri West

101000::Gas Plant in Service

0201-043001 JACKSON CTY/INDEPENDENCE

376300-Mains - Plastic

Mains-Plastic 2"

OCR

URET	10	\$0.00
Utility Account Total:	10	\$0.00
Location Total:	10	\$0.00
GL Account Total:	10	\$0.00
Posted Retirements:	10	\$0.00
Work Order Total:	10	\$0.00

Work Order Authorization Information

Header Detail

<p>Work Order: 800227</p> <p>Work Order Title: Valentine and Terrace SI Replacemen</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0599</p> <p>Funding Project Desc: Main Replacement - ISRS (N)</p> <p>Eligible for AFUDCyes: Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 450' of 2" PE. Abandon 500' of 6" CI at Valentine & Terrace St. This replacement is due to graphitization and the compliance date is 02/09/2016</p> <p>Major Location: 0401-KC/MO - Central</p> <p>Asset Location: 0401-043050 JACKSON CTY/KC</p> <p>Estimated Start Date: Jan 18, 2016</p> <p>Notes:</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20648</p> <p>Department Description: Construction & Maintenance - Region 2A - Unlo</p> <p>Budget Description: Replace cast iron main - CPI / prio</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: posted to CPR</p> <p>Estimated Completion Date: Feb 05, 2016</p> <p>Estimated In-Service Date: Feb 05, 2016</p>
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Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	1/2/2016
Engineering Review-Dist	Hoeflerlin, Craig	\$0	1/4/2016
VP Field Operations-MGE	Hampton, Joe	\$500,000	1/4/2016

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376200-Mains - Cast Iron	\$0.00	\$7,698.63	\$7,698.63	\$0.00	\$0.00
376300-Mains - Plastic	\$19,601.09	\$0.00	\$19,601.09	\$0.00	\$0.00
380100-Services - Steel	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$5,124.25	\$0.00	\$5,124.25	\$0.00	\$0.00
Total Estimated Costs:	\$24,725.34	\$7,698.63	\$32,423.97	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC						
376200-Mains - Cast Iron						
Mains-Cast Iron 6"						
Contract Payroll	\$0.00	\$1,296.40	0	0	0	0
Contractor Work	\$0.00	\$3,419.04	0	0	0	0
Department Clearings	\$0.00	\$777.84	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$803.77	0	0	0	0
Overheads Capitalized - General	\$0.00	\$1,138.34	0	0	0	0
Payroll Taxes	\$0.00	\$129.64	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	500	0	0
Stores	\$0.00	\$133.60	0	0	0	0
SubTotal Utility Account:	\$0.00	\$7,698.63	0.00	500.00	0.00	0.00
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$1,296.40	\$0.00	0	0	0	0
Contractor Work	\$10,878.18	\$0.00	0	0	0	0
Department Clearings	\$777.84	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$803.77	\$0.00	0	0	0	0
Overheads Capitalized - General	\$3,122.08	\$0.00	0	0	0	0
Payroll Taxes	\$129.64	\$0.00	0	0	0	0
Stores	\$2,793.18	\$0.00	450	0	0	0
SubTotal Utility Account:	\$19,801.09	\$0.00	450.00	0.00	0.00	0.00
380200-Services - Plastic & Copper						
Services-Plastic						
Contractor Work	\$4,270.21	\$0.00	0	0	0	0
Overheads Capitalized - General	\$854.04	\$0.00	0	0	0	0
Stores	\$0.00	\$0.00	0	0	0	0
SubTotal Utility Account:	\$5,124.25	\$0.00	0.00	0.00	0.00	0.00
380100-Services - Steel						
Services-Steel						
Retirement Value	\$0.00	\$0.00	0	59	0	0
SubTotal Utility Account:	\$0.00	\$0.00	0.00	59.00	0.00	0.00
SubTotal Location:	\$24,725.34	\$7,698.63	450.00	559.00	0.00	0.00
Total Unit Estimate:	\$24,725.34	\$7,698.63	450	559	0	0

Work Order Authorization Information

***** Class Codes *****	
Class Code	Value
cap_expense	capital
ISRS Reason	01 - Cast Iron Strategic Replacement
Isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** As-Built *****					
Asset Location					
Utility Account					
Exp Type					
Est Charge Type	Retirement Unit	Job task	Dollars	Quantity	
Used in Utilization:					
0401-043050 JACKSON CTY/KC					
376200-Mains - Cast Iron					
Retirement					
Contract Payroll	Mains-Cast Iron 6"		\$583.38	0	
Contractor Work	Mains-Cast Iron 6"		\$3,419.04	0	
Department Clearings	Mains-Cast Iron 6"		\$504.62	0	
Mechanical Equipment	Mains-Cast Iron 6"		\$120.60	0	
Overheads Capitalized - Benefits	Mains-Cast Iron 6"		\$326.11	0	
Overheads Capitalized - General	Mains-Cast Iron 6"		\$1,605.38	0	
Payroll Taxes	Mains-Cast Iron 6"		\$88.67	0	
Retirement Value	Mains-Cast Iron 6"		\$328.07	500	
Stores	Mains-Cast Iron 6"		\$149.88	0	
			Retirement Total:	\$7,125.75	500
376300-Mains - Plastic					
Addition					
Contract Payroll	Mains-Plastic 2"		\$713.02	0	
Contractor Work	Mains-Plastic 2"		\$62,709.98	0	
Department Clearings	Mains-Plastic 2"		\$616.76	0	
Mechanical Equipment	Mains-Plastic 2"		\$147.40	0	
Overheads Capitalized - Benefits	Mains-Plastic 2"		\$398.58	0	
Overheads Capitalized - General	Mains-Plastic 2"		\$27,067.58	0	
Payroll Taxes	Mains-Plastic 2"		\$108.38	0	
Stores	Mains-Plastic 2"		\$796.28	446	
			Addition Total:	\$92,557.98	446
Retirement					
Overheads Capitalized - General	Mains-Plastic 2"		\$30.86	0	
			Retirement Total:	\$30.86	0
380100-Services - Steel					
Retirement					
Contractor Work	Services-Steel		\$72.60	0	

Work Order Authorization Information

***** As-Built *****

Asset Location					
Utility Account					
Exp Type					
Est Charge Type	Retirement Unit	Job task	Dollars	Quantity	
Used in Utilization:					
0401-043050 JACKSON CTY/KC					
380100-Services - Steel					
Retirement					
Overheads Capitalized - General	Services-Steel		\$30.86	0	
Retirement Value	Services-Steel		\$16.92	50	
Retirement Value	Services-Steel		\$16.57	49	
Retirement Value	Services-Steel		\$40.69	118	
Retirement Value	Services-Steel		\$39.51	46	
Retirement Value	Services-Steel		\$57.28	41	
Retirement Total:			\$274.43	304	
380200-Services - Plastic & Copper					
Addition					
Contract Payroll	Services-Plastic		\$939.89	0	
Contractor Work	Services-Plastic		\$5,438.84	0	
Department Clearings	Services-Plastic		\$1,429.77	0	
Mechanical Equipment	Services-Plastic		\$194.30	0	
Overheads Capitalized - Benefits	Services-Plastic		\$923.98	0	
Overheads Capitalized - General	Services-Plastic		\$2,562.52	0	
Payroll Taxes	Services-Plastic		\$251.24	0	
Stores	Services-Plastic		\$347.20	457	
Addition Total:			\$12,087.74	457	
Retirement					
Contract Payroll	Services-Plastic		\$713.02	0	
Contractor Work	Services-Plastic		\$72.60	0	
Mechanical Equipment	Services-Plastic		\$147.40	0	
Overheads Capitalized - General	Services-Plastic		\$30.86	0	
Retirement Value	Services-Plastic		\$132.56	18	
Retirement Value	Services-Plastic		\$424.54	33	
Retirement Value	Services-Plastic		\$289.10	19	
Retirement Value	Services-Plastic		\$122.57	14	
Retirement Value	Services-Plastic		\$35.84	2	
Retirement Value	Services-Plastic		\$160.98	14	
Retirement Value	Services-Plastic		\$441.68	4	
Retirement Value	Services-Plastic		\$379.73	35	
Retirement Total:			\$2,950.88	139	
Location Total:		Addition Dollars	Add Qty	Retirement Dollars	Retire Qty
		\$104,645.72	903	\$10,381.92	943
Used in Utilization:		Addition Dollars	Add Qty	Retirement Dollars	Retire Qty
		\$104,645.72	903	\$10,381.92	943
Unit Estimate Total:		Addition Dollars	Add Qty	Retirement Dollars	Retire Qty
		\$104,645.72	903	\$10,381.92	943

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit				
Asset Description		Vintage	Activly Code	Retire Qty Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant In Service			
0401-043050 JACKSON CTY/KC				
376200-Mains - Cast Iron				
Mains-Cast Iron 6"				
OCR		1922	URET	500 \$328.07
		Utility Account Total:		500 \$328.07
380100-Services - Steel				
Services-Steel				
OCR		1922	URET	50 \$16.92
OCR		1922	URET	49 \$16.57
OCR		1922	URET	118 \$40.69
OCR		1968	URET	46 \$39.51
OCR		1969	URET	41 \$57.28
		Utility Account Total:		304 \$170.97
380200-Services - Plastic & Copper				
Services-Plastic				
OCR		1977	URET	18 \$132.56
OCR		1980	URET	35 \$379.73
OCR		1982	URET	33 \$424.54
OCR		1991	URET	14 \$160.98
OCR		1995	URET	14 \$122.57
OCR		2005	URET	19 \$289.10
OCR		2013	URET	2 \$35.84
OCR		2015	URET	4 \$441.68
		Utility Account Total:		139 \$1,987.00
		Location Total:		943 \$2,486.04
		GL Account Total:		943 \$2,486.04
		Posted Retirements:		943 \$2,486.04
		Work Order Total:		943 \$2,486.04

Work Order Authorization Information

Header Detail	
Work Order: 800224 Work Order Title: Repl w 2710F 20S Hwy291MoRiver Nort Wo Type Description: WO-Replacement Mains & Svcs MGE Work Order Group: Current Revision: 1 Funding Project: F0599 Funding Project Desc: Main Replacement - ISRS (N) Eligible for AFUDC: yes Eligible for CPI: yes Reason Code: Strategic WO Description: Install 20' of 2in STL, 20' of 8in STL, 20' of 12in STL, 2710' of 20in STL along Hwy 291 at the Missouri River Crossing- North Phase. Abandon 2402' of 8in STL at same location.	Company: Spire Missouri Inc. Business Segment: Missouri West Functional Class: Distribution Plant Department Code: 20648 Department Description: Construction & Maintenance - Region 2A - Unio Budget Description: Replace cast iron main - CPI / prio Est. Annual Revenue: Reimbursement Type: None Retirement Type:
Major Location: 1207-Liberty Asset Location: 1207-020001 CLAY CTY/LIBERTY	Status: posted to CPR
Estimated Start Date: Jun 01, 2016 Estimated Completion Date: Sep 30, 2016 Estimated In-Service Date: Sep 30, 2016	
Notes: Main replacement project North phase. ISRS Recoverable. Note: changed location from 1241-Liberty to 1207-Liberty and booked retirements 9-18 manually. There are no main/service assets to retire in Town 1241 - AMM. Per Prita Malla the Estimate and the As Built are properly reflected with a difference in footage of 754 Feet.	

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	4/14/2016
Engineering Review-Dist	Hoeflerlin, Craig	\$0	4/15/2016
VP Field Operations-MGE	Hampton, Joe	\$500,000	4/18/2016
Chief Operating Officer	Lindsey, Steve	\$2,000,000	4/19/2016

***** Unit Estimate *****						
Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage	
376100-Mains - Steel	\$1,283,084.36	\$25,797.16	\$1,308,881.52	\$0.00	\$0.00	
380100-Services - Steel	\$851.38	\$0.00	\$851.38	\$0.00	\$0.00	
Total Estimated Costs:	\$1,283,935.74	\$25,797.16	\$1,309,732.90	\$0.00	\$0.00	

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addillon Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
1241-020001 CLAY CTY/LIBERTY						
376100-Mains - Steel						
Mains-Steel 12"						
Contractor Work	\$2,060.20	\$0.00	0	0	0	0
Overheads Capitalized - General	\$559.70	\$0.00	0	0	0	0
Stores	\$738.30	\$0.00	20	0	0	0
Mains-Steel 2"						
Contractor Work	\$2,060.20	\$0.00	0	0	0	0
Overheads Capitalized - General	\$614.69	\$0.00	0	0	0	0
Stores	\$1,013.26	\$0.00	20	0	0	0
Mains-Steel 20"						
Contract Payroll	\$7,778.40	\$0.00	0	0	0	0
Contractor Work	\$585,557.72	\$0.00	0	0	0	0
Department Clearings	\$4,667.04	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$4,822.61	\$0.00	0	0	0	0
Overheads Capitalized - General	\$186,152.83	\$50.89	0	0	0	0
Payroll Taxes	\$777.84	\$0.00	0	0	0	0
Stores	\$332,626.55	\$0.00	1310	0	0	0
Mains-Steel 4"						
Contractor Work	\$3,296.32	\$0.00	0	0	0	0
Overheads Capitalized - General	\$1,257.30	\$0.00	0	0	0	0
Stores	\$2,990.16	\$0.00	80	0	0	0
Mains-Steel 6"						
Overheads Capitalized - General	\$16.96	\$50.89	0	0	0	0
Stores	\$339.26	\$0.00	0	0	0	0
Mains-Steel 8"						
Contract Payroll	\$0.00	\$8,843.04	0	0	0	0
Contractor Work	\$2,060.20	\$1,559.32	0	0	0	0
Department Clearings	\$0.00	\$5,305.82	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$5,482.68	0	0	0	0
Overheads Capitalized - General	\$831.24	\$3,280.96	0	0	0	0
Payroll Taxes	\$0.00	\$884.30	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	4068	0	0
Stores	\$2,011.18	\$339.26	20	0	0	0
Mains-Valves 16in & Larger						
Overheads Capitalized - General	\$23,475.40	\$0.00	0	0	0	0
Stores	\$117,377.00	\$0.00	0	0	0	0
SubTotal Utility Account:	\$1,283,084.36	\$25,797.16	1,450.00	4,068.00	0.00	0.00

Work Order Authorization Information

***** Unit Estimate *****						
Asset Location						
Utility Account						
Retirement Unit						
Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
1241-020001 CLAY CTY/LIBERTY						
380100-Services - Steel						
Services-Steel						
Contractor Work	\$709.48	\$0.00	0	0	0	0
Overheads Capitalized - General	\$141.90	\$0.00	0	0	0	0
SubTotal Utility Account:	\$851.38	\$0.00	0.00	0.00	0.00	0.00
SubTotal Location:	\$1,283,935.74	\$25,797.16	1,450.00	4,068.00	0.00	0.00
Total Unit Estimate:	\$1,283,935.74	\$25,797.16	1,450	4,068	0	0

***** Class Codes *****	
Class Code	Value
cap_expense	capital
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** As-Built *****				
Asset Location				
Utility Account				
Exp Type				
Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
Used In Utilization:				
1207-020001 CLAY CTY/LIBERTY				
376100-Mains - Steel				
Addition				
Contract Payroll	Mains-Steel 8"		\$16.30	0
Contract Payroll	Mains-Steel 12"		\$16.30	0
Contract Payroll	Mains-Steel 2"		\$16.30	0
Contract Payroll	Mains-Steel 20"		\$16.30	0
Contractor Work	Mains-Steel 20"		\$725,221.94	0
Contractor Work	Mains-Steel 2"		\$7,448.79	0
Contractor Work	Mains-Steel 8"		\$9,588.66	0
Contractor Work	Mains-Steel 12"		\$6,714.89	0
Department Clearings	Mains-Steel 8"		\$14.10	0
Department Clearings	Mains-Steel 2"		\$14.10	0
Department Clearings	Mains-Steel 12"		\$14.10	0
Department Clearings	Mains-Steel 20"		\$14.10	0

Work Order Authorization Information

***** As-Built *****

Asset Location	Utility Account	Exp Type	Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
Used in Utilization:							
1207-020001 CLAY CTY/LIBERTY							
376100-Mains - Steel							
Addillon							
		Overheads Capitalized - Benefits		Mains-Steel 12"		\$9.11	0
		Overheads Capitalized - Benefits		Mains-Steel 2"		\$9.11	0
		Overheads Capitalized - Benefits		Mains-Steel 8"		\$9.11	0
		Overheads Capitalized - Benefits		Mains-Steel 20"		\$9.11	0
		Overheads Capitalized - General		Mains-Steel 2"		\$5,415.59	0
		Overheads Capitalized - General		Mains-Steel 12"		\$3,475.18	0
		Overheads Capitalized - General		Mains-Steel 8"		\$21,991.12	0
		Overheads Capitalized - General		Mains-Steel 20"		\$490,019.59	0
		Payroll Taxes		Mains-Steel 12"		\$2.48	0
		Payroll Taxes		Mains-Steel 2"		\$2.48	0
		Payroll Taxes		Mains-Steel 8"		\$2.48	0
		Payroll Taxes		Mains-Steel 20"		\$2.48	0
		Stores		Mains-Steel 2"		\$5,291.32	367
		Stores		Mains-Steel 8"		\$42,152.69	141
		Stores		Mains-Steel 12"		\$1,459.56	10
		Stores		Mains-Steel 20"		\$427,762.88	3,006
				Addillon Total:		\$1,746,710.17	3,524
Retirement							
		Contract Payroll		Mains-Steel 2"		\$16.30	0
		Contract Payroll		Mains-Steel 8"		\$16.30	0
		Contract Payroll		Mains-Steel 12"		\$16.30	0
		Contractor Work		Mains-Steel 8"		\$8,081.58	0
		Contractor Work		Mains-Steel 2"		\$5,591.69	0
		Contractor Work		Mains-Steel 12"		\$13,351.44	0
		Department Clearings		Mains-Steel 12"		\$14.10	0
		Department Clearings		Mains-Steel 8"		\$14.10	0
		Department Clearings		Mains-Steel 2"		\$14.10	0
		Overheads Capitalized - Benefits		Mains-Steel 2"		\$9.11	0
		Overheads Capitalized - Benefits		Mains-Steel 12"		\$9.11	0
		Overheads Capitalized - Benefits		Mains-Steel 8"		\$9.11	0
		Overheads Capitalized - General		Mains-Steel 12"		\$5,875.41	0
		Overheads Capitalized - General		Mains-Steel 2"		\$2,387.12	0
		Overheads Capitalized - General		Mains-Steel 8"		\$3,435.71	0
		Payroll Taxes		Mains-Steel 8"		\$2.48	0
		Payroll Taxes		Mains-Steel 2"		\$2.48	0
		Payroll Taxes		Mains-Steel 12"		\$2.48	0
		Retirement Value		Mains-Steel 2"		\$1,520.95	8
		Retirement Value		Mains-Steel 2"		\$5,125.69	10
		Retirement Value		Mains-Steel 12"		\$1,703.88	242
		Retirement Value		Mains-Steel 8"		\$1,982.79	31
		Retirement Value		Mains-Steel 8"		\$1,254.62	416
		Retirement Value		Mains-Steel 2"		\$434.40	13
		Retirement Value		Mains-Steel 8"		\$10,585.34	650
		Retirement Value		Mains-Steel 8"		\$4,771.18	1,582

Work Order Authorization Information

***** As-Built *****				
Asset Location	Retirement Unit	Job task	Dollars	Quantity
Utility Account				
Exp Type				
Est Charge Type				
Used in Utilization:				
1207-020001 CLAY CTY/LIBERTY				
376100-Mains - Steel				
Retirement	Mains-Steel 2"		\$22.60	0
Stores				
Retirement Total:			\$66,050.37	2,952
Location Total:		<u>Addition Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>
		\$1,746,710.17	3,524	\$66,050.37
				2,952
Used in Utilization:		<u>Addition Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>
		\$1,746,710.17	3,524	\$66,050.37
				2,952
Unit Estimate Total:		<u>Addition Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>
		\$1,746,710.17	3,524	\$66,050.37
				2,952

***** Work Order Retirements *****					
Business Segment	GL Account				
Asset Location					
Utility Account					
Retirement Unit					
Asset Description		Activity	Retire Qty	Retirement Amount	
		Vintage Code			
Posted Retirements:					
Missouri West	101000::Gas Plant In Service				
1207-020001 CLAY CTY/LIBERTY					
376100-Mains - Steel					
Mains-Steel 12"					
12 inch Steel Coat/Wrap Pipe : TransType=B 2/1/2017 00:00:00		1960 URET	242	\$1,703.88	
Mains-Steel 2"					
2" COATED STEEL:111 NASHUARD: TransType=N 2/1/2017 00:00:00		2001 URET	10	\$5,125.69	
2" STEEL COATED PIPE:706 NASHUA: TransType=N 2/1/2017 00:00:00		2002 URET	8	\$1,520.95	
2" STEEL COATED PIPE:N SIDE 152HWY CONISTOR-FORREST: TransType=N 2/1/2017 00:00:00		2002 URET	13	\$434.40	
Mains-Steel 8"					
8 inch Steel Coat/Wrap Pipe : TransType=B 2/1/2017 00:00:00		1960 URET	31	\$1,982.79	
8 inch Steel Coat/Wrap Pipe : TransType=B 2/1/2017 00:00:00		1962 URET	416	\$1,254.62	
8 inch Steel Coat/Wrap Pipe : TransType=B 2/1/2017 00:00:00		1962 URET	1,582	\$4,771.18	
8 inch Steel Coat/Wrap Pipe : TransType=B 2/1/2017 00:00:00		1969 URET	650	\$10,585.34	
Utility Account Total:			2,952	\$27,378.85	
Location Total:			2,952	\$27,378.85	
GL Account Total:			2,952	\$27,378.85	
Posted Retirements:			2,952	\$27,378.85	
Work Order Total:			2,952	\$27,378.85	

GO-2019-0356

GO-2019-0357

SPIRE MISSOURI, INC.

Schedule JAR-D-6

has been deemed

“Confidential”

in its Entirety

Work Order Authorization Information

Header Detail

<p>Work Order: 801323</p> <p>Work Order Title: Repl 2814F 2-4-8P WalnutNolandCrane</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0604</p> <p>Funding Project Desc: Main Replacement - ISRS (S)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: Strategic</p> <p>WO Description: Install 160 2" PL LP Main, 31 4" PL LP Main, 2623 8" PL LP Main along Noland Road, Walnut Street, Hocker Road, and Emery Street.</p> <p>Major Location: 0201-Independence</p> <p>Asset Location: 0201-043001 JACKSON CTY//INDEPENDENCE</p>	<p>Company: Spiro Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20638</p> <p>Department Description: Construction & Maintenance - Region 2B - Unio</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: posted to CPR</p>
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Estimated Start Date: Jan 30, 2018 **Estimated Completion Date:** Mar 05, 2018 **Estimated In-Service Date:** Mar 05, 2018

Notes: Abandon 2580 Ft of 8 in CI LP Main, 14 Ft of 6 in PL LP Main, 147 Ft of 2 in ST LP Main, 23 Ft of 4 in ST LP Main, 3 Ft of 8 in ST LP Main on the above mentioned streets. Total Service Tie-over = 48; Total Service Replacement = 4; Total Service Abandoned = 5. This main is being replaced due to leaks and as part of FY18 Cast Iron Replacement Program.

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	12/28/2017
Engineering Review-Dist	Hoeflerlin, Craig	\$0	1/2/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	1/2/2018

**** Unit Estimate ****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$8,055.44	\$8,055.44	\$0.00	\$0.00
376200-Mains - Cast Iron	\$0.00	\$3,612.31	\$3,612.31	\$0.00	\$0.00
376300-Mains - Plastic	\$391,211.80	\$853.46	\$392,065.26	\$0.00	\$0.00
380100-Services - Steel	\$0.00	\$462.10	\$462.10	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$4,070.14	\$0.00	\$4,070.14	\$0.00	\$0.00
Total Estimated Costs:	\$395,281.94	\$12,983.31	\$408,265.25	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location						
Utility Account						
Retirement Unit						
Est. Chg Type	Addition Dollars	Retirement Dollars	Addl Qty	Retire Qty	Add Hrs	Retire Hrs
0201-043001 JACKSON CTY//INDEP						
376200-Mains - Cast Iron						
Mains-Cast Iron 8"						
Contract Payroll	\$0.00	\$259.28	0	0	0	0
Contractor Work	\$0.00	\$425.00	0	0	0	0
Department Clearings	\$0.00	\$224.28	0	0	0	0
Mechanical Equipment	\$0.00	\$53.60	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$144.94	0	0	0	0
Overheads Capitalized - General	\$0.00	\$889.80	0	0	0	0
Payroll Taxes	\$0.00	\$39.41	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	2580	0	0
Stores	\$0.00	\$1,576.00	0	0	0	0
SubTotal Utility Account:	\$0.00	\$3,612.31	0.00	2,580.00	0.00	0.00
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$97.23	\$0.00	0	0	0	0
Contractor Work	\$7,426.58	\$0.00	0	0	0	0
Department Clearings	\$84.10	\$0.00	0	0	0	0
Mechanical Equipment	\$20.10	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$54.35	\$0.00	0	0	0	0
Overheads Capitalized - General	\$3,270.88	\$0.00	0	0	0	0
Payroll Taxes	\$14.78	\$0.00	0	0	0	0
Stores	\$234.86	\$0.00	160	0	0	0
Mains-Plastic 4"						
Contract Payroll	\$32.41	\$0.00	0	0	0	0
Contractor Work	\$1,819.48	\$0.00	0	0	0	0
Department Clearings	\$28.03	\$0.00	0	0	0	0
Mechanical Equipment	\$6.70	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$18.12	\$0.00	0	0	0	0
Overheads Capitalized - General	\$1,115.97	\$0.00	0	0	0	0
Payroll Taxes	\$4.93	\$0.00	0	0	0	0
Stores	\$794.76	\$0.00	31	0	0	0
Mains-Plastic 6"						
Contract Payroll	\$0.00	\$16.21	0	0	0	0
Contractor Work	\$0.00	\$546.64	0	0	0	0
Department Clearings	\$0.00	\$14.02	0	0	0	0
Mechanical Equipment	\$0.00	\$3.35	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$9.06	0	0	0	0
Overheads Capitalized - General	\$0.00	\$242.82	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Additon Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0201-043001 JACKSON CTY/INDEP									
376300-Mains - Plastic									
Mains-Plastic 6"									
	Payroll Taxes			\$0.00	\$2.46	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	14	0	0
	Stores			\$0.00	\$18.90	0	0	0	0
Mains-Plastic 8"									
	Contract Payroll			\$1,101.94	\$0.00	0	0	0	0
	Contractor Work			\$232,510.87	\$0.00	0	0	0	0
	Department Clearings			\$953.18	\$0.00	0	0	0	0
	Mechanical Equipment			\$227.80	\$0.00	0	0	0	0
	Overheads Capitalized - Benefits			\$615.98	\$0.00	0	0	0	0
	Overheads Capitalized - General			\$111,399.47	\$0.00	0	0	0	0
	Payroll Taxes			\$167.49	\$0.00	0	0	0	0
	Stores			\$29,211.79	\$0.00	2623	0	0	0
	SubTotal Utility Account:			\$391,241.80	\$853.46	2,814.00	14.00	0.00	0.00
376100-Mains - Steel									
Mains-Steel 2"									
	Contract Payroll			\$0.00	\$16.21	0	0	0	0
	Contractor Work			\$0.00	\$456.12	0	0	0	0
	Department Clearings			\$0.00	\$14.02	0	0	0	0
	Mechanical Equipment			\$0.00	\$3.35	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$9.06	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$227.80	0	0	0	0
	Payroll Taxes			\$0.00	\$2.46	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	147	0	0
	Stores			\$0.00	\$74.10	0	0	0	0
Mains-Steel 4"									
	Contract Payroll			\$0.00	\$16.21	0	0	0	0
	Contractor Work			\$0.00	\$5.28	0	0	0	0
	Department Clearings			\$0.00	\$14.02	0	0	0	0
	Mechanical Equipment			\$0.00	\$3.35	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$9.06	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$4.70	0	0	0	0
	Payroll Taxes			\$0.00	\$2.46	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	23	0	0
Mains-Steel 8"									
	Contract Payroll			\$0.00	\$16.21	0	0	0	0
	Contractor Work			\$0.00	\$3,268.94	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****									
Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Additon Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0201-043001 JACKSON CTY/INDEP									
376100-Mains - Steel									
Mains-Steel 8"									
	Department Clearings			\$0.00	\$14.02	0	0	0	0
	Mechanical Equipment			\$0.00	\$3.35	0	0	0	0
	Overheads Capitalized - Benefits			\$0.00	\$9.06	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$2,134.83	0	0	0	0
	Payroll Taxes			\$0.00	\$2.46	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	3	0	0
	Stores			\$0.00	\$1,748.39	0	0	0	0
	SubTotal Utility Account:			\$0.00	\$8,055.44	0.00	173.00	0.00	0.00
380200-Services - Plastic & Copper									
Services-Plastic									
	Contractor Work			\$2,758.80	\$0.00	0	0	0	0
	Overheads Capitalized - General			\$1,213.90	\$0.00	0	0	0	0
	Stores			\$97.44	\$0.00	0	0	0	0
	SubTotal Utility Account:			\$4,070.14	\$0.00	0.00	0.00	0.00	0.00
380100-Services - Steel									
Services-Steel									
	Contractor Work			\$0.00	\$324.28	0	0	0	0
	Overheads Capitalized - General			\$0.00	\$137.82	0	0	0	0
	SubTotal Utility Account:			\$0.00	\$462.10	0.00	0.00	0.00	0.00
	SubTotal Location:			\$395,281.94	\$12,983.31	2,814.00	2,767.00	0.00	0.00
	Total Unit Estimate:			\$395,281.94	\$12,983.31	2,814	2,767	0	0

***** Class Codes *****	
Class Code	Value
cap_expense	capital
ISRS Reason	01 - Cast Iron Strategic Replacement
lsrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classificallon	bolh

Work Order Authorization Information

***** As-Built *****

Asset Location

Utility Account

Exp Type

Est Charge Type

Retirement Unit

Job task

Dollars

Quantity

Used In Utilization:

0201-043001 JACKSON CTY/INDEPENDENCE

376100-Mains - Steel

Retirement

Contract Payroll	Mains-Steel 2"	\$143.08	0
Contract Payroll	Mains-Steel 4"	\$71.54	0
Contract Payroll	Mains-Steel 8"	\$71.54	0
Contractor Work	Mains-Steel 8"	\$11,677.72	0
Contractor Work	Mains-Steel 4"	\$5,485.95	0
Contractor Work	Mains-Steel 2"	\$13,638.45	0
Department Clearings	Mains-Steel 2"	\$210.33	0
Department Clearings	Mains-Steel 8"	\$105.16	0
Department Clearings	Mains-Steel 4"	\$105.16	0
Overheads Capitalized - Benefits	Mains-Steel 4"	\$62.96	0
Overheads Capitalized - Benefits	Mains-Steel 8"	\$62.96	0
Overheads Capitalized - Benefits	Mains-Steel 2"	\$125.91	0
Overheads Capitalized - General	Mains-Steel 2"	\$8,422.64	0
Overheads Capitalized - General	Mains-Steel 4"	\$3,364.54	0
Overheads Capitalized - General	Mains-Steel 8"	\$8,330.37	0
Payroll Taxes	Mains-Steel 4"	\$10.87	0
Payroll Taxes	Mains-Steel 8"	\$10.87	0
Payroll Taxes	Mains-Steel 2"	\$21.75	0
Retirement Value	Mains-Steel 4"	\$137.86	22
Retirement Value	Mains-Steel 4"	\$328.92	101
Retirement Value	Mains-Steel 2"	\$169.18	150
Retirement Value	Mains-Steel 8"	\$325.50	27
Retirement Value	Mains-Steel 8"	\$844.97	114
Retirement Value	Mains-Steel 2"	\$165.76	148
Stores	Mains-Steel 2"	\$147.34	0
Stores	Mains-Steel 8"	\$1,967.71	0
Stores	Mains-Steel 4"	\$18.78	0

Retirement Total: \$56,027.82 562

376200-Mains - Cast Iron

Retirement

Contract Payroll	Mains-Cast Iron 8"	\$1,180.41	0
Contractor Work	Mains-Cast Iron 8"	\$113,933.23	0
Department Clearings	Mains-Cast Iron 8"	\$1,735.20	0
Overheads Capitalized - Benefits	Mains-Cast Iron 8"	\$1,038.76	0
Overheads Capitalized - General	Mains-Cast Iron 8"	\$69,621.27	0
Payroll Taxes	Mains-Cast Iron 8"	\$179.42	0
Retirement Value	Mains-Cast Iron 8"	\$2,158.90	1,300
Retirement Value	Mains-Cast Iron 8"	\$2,104.10	1,267
Stores	Mains-Cast Iron 8"	\$20.04	0

Retirement Total: \$191,971.33 2,567

376300-Mains - Plastic

Addition

Contract Payroll	Mains-Plastic 8"	\$8,549.03	0
Contract Payroll	Mains-Plastic 6"	\$107.31	0

Work Order Authorization Information

***** As-Built *****

Asset Location				
Utility Account				
Exp Type				
Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
Used In Utilization:				
0201-043001 JACKSON CTY/INDEPENDENCE				
376300-Mains - Plastic				
Addition				
Contract Payroll	Mains-Plastic 2"		\$1,323.49	0
Contract Payroll	Mains-Plastic 4"		\$250.39	0
Contractor Work	Mains-Plastic 8"		\$231,852.73	0
Contractor Work	Mains-Plastic 4"		\$47,254.12	0
Contractor Work	Mains-Plastic 2"		\$47,404.26	0
Contractor Work	Mains-Plastic 6"		\$512.94	0
Department Clearings	Mains-Plastic 4"		\$368.07	0
Department Clearings	Mains-Plastic 6"		\$157.75	0
Department Clearings	Mains-Plastic 8"		\$12,567.07	0
Department Clearings	Mains-Plastic 2"		\$1,945.53	0
Overheads Capitalized - Benefits	Mains-Plastic 6"		\$94.43	0
Overheads Capitalized - Benefits	Mains-Plastic 2"		\$1,164.67	0
Overheads Capitalized - Benefits	Mains-Plastic 4"		\$220.34	0
Overheads Capitalized - Benefits	Mains-Plastic 8"		\$7,523.15	0
Overheads Capitalized - General	Mains-Plastic 6"		\$333.43	0
Overheads Capitalized - General	Mains-Plastic 8"		\$165,564.54	0
Overheads Capitalized - General	Mains-Plastic 4"		\$29,248.84	0
Overheads Capitalized - General	Mains-Plastic 2"		\$30,220.91	0
Payroll Taxes	Mains-Plastic 2"		\$201.17	0
Payroll Taxes	Mains-Plastic 6"		\$16.31	0
Payroll Taxes	Mains-Plastic 8"		\$1,299.45	0
Payroll Taxes	Mains-Plastic 4"		\$38.06	0
Stores	Mains-Plastic 2"		\$1,936.43	1,007
Stores	Mains-Plastic 6"		\$17.31	3
Stores	Mains-Plastic 8"		\$38,261.18	2,735
Stores	Mains-Plastic 4"		\$656.62	101
Addition Total:			\$629,089.53	3,846
380100-Services - Steel				
Retirement				
Contractor Work	Services-Steel		\$45.20	0
Overheads Capitalized - General	Services-Steel		\$27.57	0
Retirement Value	Services-Steel		\$0.31	3
Retirement Value	Services-Steel		\$0.62	6
Retirement Total:			\$73.70	9
380200-Services - Plastic & Copper				
Addition				
Contractor Work	Services-Plastic		\$10,345.50	0
Overheads Capitalized - General	Services-Plastic		\$6,932.50	0
Stores	Services-Plastic		\$1,019.25	822
Addition Total:			\$18,297.25	822
Retirement				
Contractor Work	Services-Plastic		\$1,216.05	0
Overheads Capitalized - General	Services-Plastic		\$741.79	0
Retirement Value	Services-Plastic		\$441.62	52

Work Order Authorization Information

***** As-Built *****

Asset Location	Utility Account	Exp Type	Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
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Used in Utilization:

0201-043001 JACKSON CTY/INDEPENDENCE
380200-Services - Plastic & Copper

Retirement

Retirement Value	Services-Plastic					\$815.51	111
Retirement Value	Services-Plastic					\$539.83	48
Retirement Value	Services-Plastic					\$809.56	95
Retirement Value	Services-Plastic					\$127.11	18
Retirement Value	Services-Plastic					\$81.28	4
Retirement Value	Services-Plastic					\$104.35	10
Retirement Value	Services-Plastic					\$619.85	54
Retirement Value	Services-Plastic					\$425.40	34
Retirement Value	Services-Plastic					\$223.03	10
Retirement Value	Services-Plastic					\$1,458.22	139
Retirement Value	Services-Plastic					\$304.62	23
Retirement Value	Services-Plastic					\$167.24	17
Retirement Value	Services-Plastic					\$575.09	40
Retirement Value	Services-Plastic					\$25.44	29
Retirement Value	Services-Plastic					\$447.46	42
Retirement Value	Services-Plastic					\$2,453.33	338
Retirement Value	Services-Plastic					\$667.81	65
Retirement Value	Services-Plastic					\$469.68	62

Retirement Total: \$12,714.27 1,191

	<u>Additon Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>
Location Total:	\$647,386.78	4,668	\$260,787.12	4,329
Used in Utilization:	\$647,386.78	4,668	\$260,787.12	4,329
Unit Estimate Total:	\$647,386.78	4,668	\$260,787.12	4,329

***** Work Order Retirements *****

Business Segment	GL Account	Asset Location	Utility Account	Retirement Unit	Asset Description	Vintage	Activity Code	Retire Qty	Retirement Amount
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Posted Retirements:

Missouri West	101000::Gas Plant In Service								
0201-043001 JACKSON CTY/INDEPENDENCE									
376100-Mains - Steel									
	Mains-Steel 2"								
OCR						1961	URET	148	\$165.76

OCR
Mains-Steel 4"

1963 URE1 150 \$169.18

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account				
Asset Location		1956	URET	22	\$137.86
Utility Account					
Retirement Unit			Activity		
Asset Description		Vintage	Code	Retire Qty	Retirement Amount
OCR	Mains-Steel 8"	1971	URET	101	\$328.92
OCR		1971	URET	114	\$844.97
OCR		1973	URET	27	\$325.50
		Utility Account Total:		562	\$1,972.19
376200-Mains - Cast Iron	Mains-Cast Iron 8"				
OCR		1939	URET	1,267	\$2,104.10
OCR		1939	URET	1,300	\$2,168.90
		Utility Account Total:		2,567	\$4,263.00
380100-Services - Steel	Services-Steel				
OCR		1947	URET	3	\$0.31
OCR		1947	URET	6	\$0.62
		Utility Account Total:		9	\$0.93
380200-Services - Plastic & Copper	Services-Plastic				
OCR		1978	URET	29	\$25.44
OCR		1981	URET	48	\$539.83

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account				
Asset Location					
Utility Account					
Retirement Unit					
Asset Description		Vintage	Activity Code	Retire Qty	Retirement Amount
Posted Retirements:					
Missouri West	101000::Gas Plant In Service				
0201-043001 JACKSON CTY/INDEPENDENCE					
380200-Services - Plastic & Copper					
Services-Plastic					
OCR		1982	URET	54	\$619.85
OCR		1985	URET	52	\$441.62
OCR		1986	URET	34	\$425.40
OCR		1988	URET	40	\$575.09
OCR		1989	URET	111	\$815.51
OCR		1990	URET	65	\$667.81
OCR		1993	URET	18	\$127.11
OCR		1994	URET	95	\$809.56
OCR		1995	URET	139	\$1,458.22
OCR		1996	URET	10	\$104.35
OCR		1997	URET	17	\$167.24
OCR		1999	URET	338	\$2,453.33
OCR		2000	URET	42	\$447.46
OCR		2006	URET	23	\$304.62
OCR		2007	URET	10	\$223.03
OCR		2010	URET	4	\$81.28
OCR		2018	URET	62	\$469.68
		Utility Account Total:		1,191	\$10,756.43
		Location Total:		4,329	\$16,992.55
		GL Account Total:		4,329	\$16,992.55
		Posted Retirements:		4,329	\$16,992.55
		Work Order Total:		4,329	\$16,992.55

Work Order Authorization Information

Header Detail

<p>Work Order: 801627</p> <p>Work Order Title: Repl 1295F 2-3-4P Leaks on Fairview</p> <p>Wo Type Description: WO-Replacement Mains & Svcs MGE</p> <p>Work Order Group:</p> <p>Current Revision: 1</p> <p>Funding Project: F0572</p> <p>Funding Project Desc: Main Replacement - ISRS (SW)</p> <p>Eligible for AFUDC: yes Eligible for CPI: yes</p> <p>Reason Code: System Integrity</p> <p>WO Description: Install ~ 1200 Ft. of 2 in. PL LP Main, ~ 10 Ft. of 3 in. PL LP Main, and ~ 85 Ft. of 4 in. PL LP Main on W Fairview Ave., S Maple St., S Main St., and Grand Ave.</p> <p>Major Location: 0601-Carthage</p> <p>Asset Location: 0601-044025 JASPER CTY/CARTHAGE</p>	<p>Company: Spire Missouri Inc.</p> <p>Business Segment: Missouri West</p> <p>Functional Class: Distribution Plant</p> <p>Department Code: 20921</p> <p>Department Description: Region 2B - SW Missouri - Distribution - Union</p> <p>Budget Description: Replace bare steel main - safety re</p> <p>Est. Annual Revenue:</p> <p>Reimbursement Type: None</p> <p>Retirement Type:</p> <p>Status: posted to CPR</p>
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Estimated Start Date: Feb 12, 2018 **Estimated Completion Date:** Apr 02, 2018 **Estimated In-Service Date:** Apr 02, 2018

Notes: Replacement due to leaks along Fairview Ave from Maple to Grand in Carthage. Abandon 5 Ft of 3 in. PL LP Main, 621 Ft of 2 in. ST LP Main, 414 Ft of 3 in. ST LP Main on the above mentioned streets. Total Service Tie-over = 7; Total Service Abandoned = 1. This main is being replaced due to CP deficiencies and as part of FY18 Bare Steel Replacement Program. Per Prita Malla the Estimate and the As Built are properly reflected with a difference in footage of 330 Feet.

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	1/19/2018
Engineering Review-Dist	Hoeflerlin, Craig	\$0	1/22/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	1/22/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$8,012.23	\$8,012.23	\$0.00	\$0.00
376300-Mains - Plastic	\$78,890.41	\$447.34	\$79,337.75	\$0.00	\$0.00
Total Estimated Costs:	\$78,890.41	\$8,459.57	\$87,349.98	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs	
0601-044025 JASPER CTY/CARTHA										
376300-Mains - Plastic										
Mains-Plastic 2"										
				Contract Payroll	\$518.58	\$0.00	0	0	0	0
				Contractor Work	\$44,768.54	\$0.00	0	0	0	0
				Department Clearings	\$448.55	\$0.00	0	0	0	0
				Mechanical Equipment	\$107.20	\$0.00	0	0	0	0
				Overheads Capitalized - Benefits	\$289.88	\$0.00	0	0	0	0
				Overheads Capitalized - General	\$20,378.61	\$0.00	0	0	0	0
				Payroll Taxes	\$78.82	\$0.00	0	0	0	0
				Stores	\$2,995.85	\$0.00	1200	0	0	0
Mains-Plastic 3"										
				Contract Payroll	\$32.41	\$16.21	0	0	0	0
				Contractor Work	\$903.08	\$275.95	0	0	0	0
				Department Clearings	\$28.03	\$14.02	0	0	0	0
				Mechanical Equipment	\$6.70	\$3.35	0	0	0	0
				Overheads Capitalized - Benefits	\$18.12	\$9.06	0	0	0	0
				Overheads Capitalized - General	\$573.72	\$121.69	0	0	0	0
				Payroll Taxes	\$4.93	\$2.46	0	0	0	0
				Retirement Value	\$0.00	\$0.00	0	5	0	0
				Stores	\$435.26	\$4.60	10	0	0	0
Mains-Plastic 4"										
				Contract Payroll	\$64.82	\$0.00	0	0	0	0
				Contractor Work	\$4,444.16	\$0.00	0	0	0	0
				Department Clearings	\$56.07	\$0.00	0	0	0	0
				Mechanical Equipment	\$13.40	\$0.00	0	0	0	0
				Overheads Capitalized - Benefits	\$36.23	\$0.00	0	0	0	0
				Overheads Capitalized - General	\$2,130.95	\$0.00	0	0	0	0
				Payroll Taxes	\$9.85	\$0.00	0	0	0	0
				Stores	\$546.67	\$0.00	85	0	0	0
				SubTotal Utility Account:	\$78,890.41	\$447.34	1,295.00	5.00	0.00	0.00
376100-Mains - Steel										
Mains-Steel 2"										
				Contract Payroll	\$0.00	\$81.02	0	0	0	0
				Contractor Work	\$0.00	\$3,774.90	0	0	0	0
				Department Clearings	\$0.00	\$70.08	0	0	0	0
				Mechanical Equipment	\$0.00	\$16.75	0	0	0	0
				Overheads Capitalized - Benefits	\$0.00	\$45.29	0	0	0	0
				Overheads Capitalized - General	\$0.00	\$1,810.03	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Additon Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0601-044025 JASPER CTY/CARTHA									
376100-Mains - Steel									
Mains-Steel 2*									
			Payroll Taxes	\$0.00	\$12.32	0	0	0	0
			Retirement Value	\$0.00	\$0.00	0	621	0	0
			Stores	\$0.00	\$455.04	0	0	0	0
Mains-Steel 3*									
			Contract Payroll	\$0.00	\$64.82	0	0	0	0
			Contractor Work	\$0.00	\$1,033.60	0	0	0	0
			Department Clearings	\$0.00	\$56.07	0	0	0	0
			Mechanical Equipment	\$0.00	\$13.40	0	0	0	0
			Overheads Capitalized - Benefits	\$0.00	\$36.23	0	0	0	0
			Overheads Capitalized - General	\$0.00	\$474.09	0	0	0	0
			Payroll Taxes	\$0.00	\$9.85	0	0	0	0
			Retirement Value	\$0.00	\$0.00	0	414	0	0
			Stores	\$0.00	\$58.74	0	0	0	0
			SubTotal Utility Account:	\$0.00	\$8,012.23	0.00	1,035.00	0.00	0.00
			SubTotal Location:	\$78,890.41	\$8,469.57	1,295.00	1,040.00	0.00	0.00
			Total Unit Estimate:	\$78,890.41	\$8,469.57	1,295	1,040	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
ISRS Reason	08 - Cast Iron or Bare Steel Replacement - Lea
lsrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** As-Built *****

Asset Location	Utility Account	Exp Type	Retirement Unit	Job task	Dollars	Quantity
Used In Utilization:						
0601-044025 JASPER CTY/CARTHAGE						
376100-Mains - Steel						
		Retirement				
		Contract Payroll	Mains-Steel 4*		\$32.60	0

Contract Payroll

Work Order Authorization Information

\$326.00

0

***** As-Built *****

Asset Location Utility Account Exp Type Contract Payroll Est Charge Type	Mains-Steel 3" Retirement Unit	Job task	\$228.20 Dollars	Quantity 0
Contractor Work	Mains-Steel 4"		\$10.73	0
Contractor Work	Mains-Steel 2"		\$4,948.82	0
Contractor Work	Mains-Steel 3"		\$5,928.85	0
Department Clearings	Mains-Steel 2"		\$281.99	0
Department Clearings	Mains-Steel 3"		\$197.39	0
Department Clearings	Mains-Steel 4"		\$28.20	0
Overheads Capitalized - Benefits	Mains-Steel 2"		\$182.23	0
Overheads Capitalized - Benefits	Mains-Steel 3"		\$127.56	0
Overheads Capitalized - Benefits	Mains-Steel 4"		\$18.22	0
Overheads Capitalized - General	Mains-Steel 2"		\$2,893.45	0

Overheads Capitalized - General

Mains-Steel 3"

\$2,765.71

0

Work Order Authorization Information

***** As-Built *****

Asset Location Utility Account Exp Type Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
Overheads Capitalized - General	Mains-Steel 4"		\$6.65	0
Payroll Taxes	Mains-Steel 2"		\$49.55	0
Payroll Taxes	Mains-Steel 4"		\$4.96	0
Payroll Taxes	Mains-Steel 3"		\$34.69	0
Retirement Value	Mains-Steel 2"		\$4.97	76
Retirement Value	Mains-Steel 3"		\$12.64	3
Retirement Value	Mains-Steel 2"		\$0.98	15
Retirement Value	Mains-Steel 2"		\$148.34	77
Retirement Value	Mains-Steel 2"		\$223.47	74
Retirement Value	Mains-Steel 2"		\$216.41	9
Retirement Value	Mains-Steel 2"		\$207.48	456

Work Order Authorization Information

***** As-Built *****

Asset Location	Utility Account	Exp Type	Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
Used in Utilization:							
0601-044025 JASPER CTY/CARTHAGE							
376100-Mains - Steel							
Retirement							
				Retirement Value	Mains-Steel 3"	\$65.38	242
				Retirement Value	Mains-Steel 4"	\$77.76	10
				Stores	Mains-Steel 3"	\$544.33	0
				Stores	Mains-Steel 2"	\$1,810.20	0
Retirement Total:						\$21,495.83	1,399
376300-Mains - Plastic							
Addition							
				Contract Payroll	Mains-Plastic 2"	\$2,347.20	0
				Contract Payroll	Mains-Plastic 4"	\$2,347.20	0
				Contractor Work	Mains-Plastic 2"	\$71,711.53	0
				Contractor Work	Mains-Plastic 4"	\$8,286.77	0
				Department Clearings	Mains-Plastic 2"	\$2,030.33	0
				Department Clearings	Mains-Plastic 4"	\$2,030.33	0
				Overheads Capitalized - Benefits	Mains-Plastic 4"	\$1,312.08	0
				Overheads Capitalized - Benefits	Mains-Plastic 2"	\$1,312.08	0
				Overheads Capitalized - General	Mains-Plastic 2"	\$32,809.47	0
				Overheads Capitalized - General	Mains-Plastic 4"	\$3,773.33	0
				Payroll Taxes	Mains-Plastic 2"	\$356.77	0
				Payroll Taxes	Mains-Plastic 4"	\$356.77	0
				Stores	Mains-Plastic 4"	\$238.19	62
				Stores	Mains-Plastic 2"	\$5,133.77	1,563
Addition Total:						\$134,045.82	1,625
Retirement							
				Contract Payroll	Mains-Plastic 3"	\$32.60	0
				Contract Payroll	Mains-Plastic 2"	\$32.60	0
				Contractor Work	Mains-Plastic 3"	\$10.73	0
				Contractor Work	Mains-Plastic 2"	\$21.46	0
				Department Clearings	Mains-Plastic 2"	\$28.20	0
				Department Clearings	Mains-Plastic 3"	\$28.20	0
				Overheads Capitalized - Benefits	Mains-Plastic 3"	\$18.22	0
				Overheads Capitalized - Benefits	Mains-Plastic 2"	\$18.22	0
				Overheads Capitalized - General	Mains-Plastic 3"	\$8.63	0
				Overheads Capitalized - General	Mains-Plastic 2"	\$11.21	0
				Payroll Taxes	Mains-Plastic 3"	\$4.96	0
				Payroll Taxes	Mains-Plastic 2"	\$4.96	0
				Retirement Value	Mains-Plastic 3"	\$602.40	11
				Retirement Value	Mains-Plastic 2"	\$34.06	8
				Retirement Value	Mains-Plastic 2"	\$182.90	58
				Stores	Mains-Plastic 3"	\$4.67	0
Retirement Total:						\$1,044.02	77

Work Order Authorization Information

***** Work Order Retirements *****

Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit				
Asset Description		Vintage	Activity Code	Retire Qty Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant In Service			
0601-044025 JASPER CTY/CARTHAGE				
376100-Mains - Steel				
Mains-Steel 4"				
OCR		1971	URET	10 \$77.76
				Utility Account Total: 1,399 \$1,075.50
376300-Mains - Plastic				
Mains-Plastic 2"				
OCR		1978	URET	8 \$34.06
OCR		1989	URET	58 \$182.90
Mains-Plastic 3"				
OCR		2000	URET	11 \$602.40
				Utility Account Total: 77 \$819.36
380200-Services - Plastic & Copper				
Services-Plastic				
OCR		1993	URET	119 \$1,096.54
OCR		1995	URET	70 \$1,164.41
OCR		2012	URET	11 \$213.10
				Utility Account Total: 200 \$2,474.05
				Location Total: 1,676 \$4,368.91
				GL Account Total: 1,676 \$4,368.91
				Posted Retirements: 1,676 \$4,368.91
				Work Order Total: 1,676 \$4,368.91

Work Order Authorization Information

Header Detail

<p>Work Order: 801844 Work Order Title: Repl 700F 2P 63rd & Baltimore Wo Type Description: WO-Replacement Mains & Svcs MGE Work Order Group: Current Revision: 1 Funding Project: F0599 Funding Project Desc: Main Replacement - ISRS (N) Eligible for AFUDC: yes Eligible for CPI: yes Reason Code: Asset Improvements WO Description: Install ~ 700 ft of 2 in PL IP main along Baltimore.</p>	<p>Company: Spiro Missouri Inc. Business Segment: Missouri West Functional Class: Distribution Plant Department Code: 20648 Department Description: Construction & Maintenance - Region 2A - Uno Budget Description: Replace cast iron main - CPI / prio Est. Annual Revenue: Reimbursement Type: None Retirement Type:</p>
<p>Major Location: 0401-KC/MO - Central Asset Location: 0401-043050 JACKSON CTY/KC</p>	<p>Status: posted to CPR</p>
<p>Estimated Start Date: Jan 02, 2018 Estimated Completion Date: Jan 05, 2018 Estimated In-Service Date: Jan 05, 2018</p>	
<p>Notes: Abandon ~ 551 ft of 4 in CI LP main and ~ 13 ft of 4 in ST at same location. Total Service Tie-over = 9; Total Service Replace = 3. This main is being replaced due to a leak.</p>	

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	12/18/2017
Engineering Review-Dist	Hoeferlin, Craig	\$0	1/2/2018
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	1/2/2018

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$95.11	\$95.11	\$0.00	\$0.00
376200-Mains - Cast Iron	\$0.00	\$7,217.31	\$7,217.31	\$0.00	\$0.00
376300-Mains - Plastic	\$41,807.27	\$0.00	\$41,807.27	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$7,653.19	\$0.00	\$7,653.19	\$0.00	\$0.00
Total Estimated Costs:	\$49,460.46	\$7,312.42	\$56,772.88	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location Utility Account Retirement Unit Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC						
376200-Mains - Cast Iron						
Mains-Cast Iron 4"						
Contract Payroll	\$0.00	\$1,236.74	0	0	0	0
Contractor Work	\$0.00	\$2,279.36	0	0	0	0
Department Clearings	\$0.00	\$1,069.78	0	0	0	0
Mechanical Equipment	\$0.00	\$102.20	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$691.34	0	0	0	0
Overheads Capitalized - General	\$0.00	\$1,257.91	0	0	0	0
Payroll Taxes	\$0.00	\$187.98	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	551	0	0
Stores	\$0.00	\$392.00	0	0	0	0
SubTotal Utility Account:	\$0.00	\$7,217.31	0.00	551.00	0.00	0.00
376300-Mains - Plastic						
Mains-Plastic 2"						
Contract Payroll	\$1,296.40	\$0.00	0	0	0	0
Contractor Work	\$25,362.91	\$0.00	0	0	0	0
Department Clearings	\$1,121.39	\$0.00	0	0	0	0
Mechanical Equipment	\$268.00	\$0.00	0	0	0	0
Overheads Capitalized - Benefits	\$724.69	\$0.00	0	0	0	0
Overheads Capitalized - General	\$11,531.06	\$0.00	0	0	0	0
Payroll Taxes	\$197.05	\$0.00	0	0	0	0
Stores	\$1,305.77	\$0.00	700	0	0	0
SubTotal Utility Account:	\$41,807.27	\$0.00	700.00	0.00	0.00	0.00
376100-Mains - Steel						
Mains-Steel 4"						
Contract Payroll	\$0.00	\$32.41	0	0	0	0
Department Clearings	\$0.00	\$28.03	0	0	0	0
Mechanical Equipment	\$0.00	\$6.70	0	0	0	0
Overheads Capitalized - Benefits	\$0.00	\$18.12	0	0	0	0
Overheads Capitalized - General	\$0.00	\$4.92	0	0	0	0
Payroll Taxes	\$0.00	\$4.93	0	0	0	0
Retirement Value	\$0.00	\$0.00	0	13	0	0
SubTotal Utility Account:	\$0.00	\$95.11	0.00	13.00	0.00	0.00
380200-Services - Plastic & Copper						
Services-Plastic						
Contractor Work	\$5,370.66	\$0.00	0	0	0	0

Work Order Authorization Information

***** Unit Estimate *****									
Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Additon Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0401-043050 JACKSON CTY/KC									
380200-Services - Plastic & Copper									
Services-Plastic									
Overheads Capitalized - General									
				\$2,282.53	\$0.00	0	0	0	0
SubTotal Utility Account:				\$7,653.19	\$0.00	0.00	0.00	0.00	0.00
SubTotal Location:				\$49,460.46	\$7,312.42	700.00	564.00	0.00	0.00
Total Unit Estimate:				\$49,460.46	\$7,312.42	700	564	0	0

***** Class Codes *****	
Class Code	Value
cap_expense	capital
ISRS Reason	08 - Cast Iron or Bare Steel Replacement - Lea
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

***** As-Built *****							
Asset Location	Utility Account	Exp Type	Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
Used In Utilization:							
0401-043050 JACKSON CTY/KC							
376100-Mains - Steel							
Retirement							
				Contract Payroll	Mains-Steel 4"	\$163.00	0
				Contractor Work	Mains-Steel 4"	\$4,029.20	0
				Department Clearings	Mains-Steel 4"	\$141.00	0
				Overheads Capitalized - Benefits	Mains-Steel 4"	\$91.12	0
				Overheads Capitalized - General	Mains-Steel 4"	\$1,722.84	0
				Payroll Taxes	Mains-Steel 4"	\$24.78	0
				Retirement Value	Mains-Steel 4"	\$72.30	13
Retirement Total:						\$6,244.24	13
376200-Mains - Cast Iron							
Retirement							
				Contract Payroll	Mains-Cast Iron 4"	\$65.20	0
				Contractor Work	Mains-Cast Iron 4"	\$2,470.48	0
				Department Clearings	Mains-Cast Iron 4"	\$56.40	0

Work Order Authorization Information

***** As-Built *****

Asset Location				
Utility Account				
Exp Type				
Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
Used In Utilization:				
0401-043050 JACKSON CTY/KC				
376200-Mains - Cast Iron				
Retirement				
Overheads Capitalized - Benefits	Mains-Cast Iron 4"		\$36.45	0
Overheads Capitalized - General	Mains-Cast Iron 4"		\$1,088.74	0
Payroll Taxes	Mains-Cast Iron 4"		\$9.91	0
Retirement Value	Mains-Cast Iron 4"		\$67.85	547
Stores	Mains-Cast Iron 4"		\$34.38	0
		Retirement Total:	\$3,809.41	547
376300-Mains - Plastic				
Addition				
Contract Payroll	Mains-Plastic 2"		\$391.20	0
Contractor Work	Mains-Plastic 2"		\$14,720.46	0
Department Clearings	Mains-Plastic 2"		\$338.39	0
Overheads Capitalized - Benefits	Mains-Plastic 2"		\$218.68	0
Overheads Capitalized - General	Mains-Plastic 2"		\$9,006.87	0
Payroll Taxes	Mains-Plastic 2"		\$59.46	0
Stores	Mains-Plastic 2"		\$6,413.27	710
		Addition Total:	\$31,148.33	710
380100-Services - Steel				
Retirement				
Contractor Work	Services-Steel		\$162.14	0
Overheads Capitalized - General	Services-Steel		\$68.91	0
Retirement Value	Services-Steel		\$16.58	42
Retirement Value	Services-Steel		\$116.89	88
		Retirement Total:	\$364.52	130
380200-Services - Plastic & Copper				
Addition				
Contract Payroll	Services-Plastic		\$244.50	0
Contractor Work	Services-Plastic		\$3,412.80	0
Department Clearings	Services-Plastic		\$211.49	0
Overheads Capitalized - Benefits	Services-Plastic		\$136.68	0
Overheads Capitalized - General	Services-Plastic		\$1,489.85	0
Payroll Taxes	Services-Plastic		\$37.16	0
Stores	Services-Plastic		\$55.92	268
		Addition Total:	\$5,588.40	268
Retirement				
Contractor Work	Services-Plastic		\$162.14	0
Overheads Capitalized - General	Services-Plastic		\$68.91	0
Retirement Value	Services-Plastic		\$79.21	10
Retirement Value	Services-Plastic		\$20.58	1
Retirement Value	Services-Plastic		\$365.12	24
Retirement Value	Services-Plastic		\$103.61	8
Retirement Value	Services-Plastic		\$1,079.77	112

Work Order Authorization Information

***** As-Built *****

Asset Location	Utility Account	Exp Type	Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
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Used in Utilization:

0401-043050 JACKSON CTY/KC
380200-Services - Plastic & Copper

Retirement

Retirement Value	Services-Plastic		\$744.03	40
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Retirement Total:			\$2,623.37	195
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Location Total:	<u>Additon Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>
	\$36,736.73	978	\$13,041.54	885

Used in Utilization:	<u>Additon Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>
	\$36,736.73	978	\$13,041.54	885

Unit Estimate Total:	<u>Additon Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>
	\$36,736.73	978	\$13,041.54	885

***** Work Order Retirements *****

Business Segment	GL Account	Asset Location	Utility Account	Retirement Unit	Asset Description	Activity Vintage	Code	Retire Qty	Retirement Amount
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Posted Retirements:

Missouri West 101000::Gas Plant In Service

0401-043050 JACKSON CTY/KC

376100-Mains - Steel

Mains-Steel 4"

OCR

1970	URET	13	\$72.30
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Utility Account Total:		13	\$72.30
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376200-Mains - Cast Iron

Mains-Cast Iron 4"

OCR

1922	URET	547	\$67.85
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Utility Account Total:		547	\$67.85
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380100-Services - Steel

Services-Steel

OCR

1925	URET	42	\$16.58
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OCR

1964	URET	88	\$116.89
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Utility Account Total:		130	\$133.47
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380200-Services - Plastic & Copper

Services-Plastic

OCR

1978	URET	10	\$79.21
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OCR

1979	URET	112	\$1,079.77
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OCR

1990	URET	8	\$103.61
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OCR

2001	URET	1	\$20.58
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OCR

2004	URET	40	\$744.03
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Work Order Authorization Information

***** Work Order Retirements *****				
Business Segment	GL Account			
Asset Location				
Utility Account				
Retirement Unit		Activity		
Asset Description		Vintage Code	Retire Qty	Retirement Amount
Posted Retirements:				
Missouri West	101000::Gas Plant in Service			
0401-043050 JACKSON CTY/KC				
380200-Services - Plastic & Copper				
Services-Plastic				
OCR		2005 URET	24	\$365.12
		Utility Account Total:	195	\$2,392.32
		Location Total:	885	\$2,665.94
		GL Account Total:	885	\$2,665.94
		Posted Retirements:	885	\$2,665.94
		Work Order Total:	885	\$2,665.94

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Work Order Authorization Information

Header Detail

<p>Work Order: 801284 Work Order Title: Repl 5625F 2-4P Elliot & Hwy K Wo Type Description: WO-Replacement Mains & Svcs MGE Work Order Group: Current Revision: 1 Funding Project: F0572 Funding Project Desc: Main Replacement - ISRS (SW) Eligible for AFUDC: yes Eligible for CPI: yes Reason Code: Strategic WO Description: Install 3481 ft of 2 In PL LP main and 2144 ft of 4 In PL LP main on E Crescent St, Cofield St, Elliot Ave, Tyndall St, Myrtle St, Oak Ave, Delta St, and High St.</p>	<p>Company: Spire Missouri Inc. Business Segment: Missouri West Functional Class: Distribution Plant Department Code: 20921 Department Description: Region 2B - SW Missouri - Distribution - Union Budget Description: Replace bare steel main - safety re Est. Annual Revenue: Reimbursement Type: None Retirement Type:</p>
<p>Major Location: 0809-Aurora Asset Location: 0809-050003 LAWRENCE CTY/AURORA</p>	<p>Status: posted to CPR</p>

Estimated Start Date: Mar 13, 2017 **Estimated Completion Date:** Jun 30, 2017 **Estimated In-Service Date:** Jun 30, 2017

Notes: Abandon 183 Ft of 1 1/4 In PL LP main, 37 Ft of 2 In PL LP main, 55 Ft of 1 1/4 In ST LP main, 5677 Ft of 2 In ST LP main, and 5 Ft of 4 In ST LP main at the above locations. Upgrade 1548 ft of 2 In PL LP main on High St and Delta St. Total Service Tie-over = 40; Total Service Replace = 3; Total Service Abandonments = 15; Total Service Upgrade = 9. This main is being replaced as part of FY17 Bare Steel Replacement Program. 3 - #3 Leaks due by July 2017. Note: 41 feet of 1 1/4" Mains Steel was deleted from the Estimate As-Built since there was nothing PowerPlan could match for retirement. - Mike Griewing

Reason for Work (Justification)

Approvals

Level	Approver	Approval Limit	Date Approved
Operational Accounting	Muehlenkamp, Anne	\$0	3/10/2017
Engineering Review-Dist	Hoferlin, Craig	\$0	3/20/2017
VP Field Operations-MGE	Hampton, Joe	\$1,000,000	3/21/2017

***** Unit Estimate *****

Utility Account	Additions	Removal Cost	Total Expenditures	Retirement Value	Salvage
376100-Mains - Steel	\$0.00	\$12,003.36	\$12,003.36	\$0.00	\$0.00
376300-Mains - Plastic	\$248,727.72	\$399.69	\$249,127.41	\$0.00	\$0.00
380200-Services - Plastic & Copper	\$3,866.73	\$0.00	\$3,866.73	\$0.00	\$0.00
Total Estimated Costs:	\$252,694.45	\$12,403.05	\$264,997.50	\$0.00	\$0.00

Work Order Authorization Information

***** Unit Estimate *****

Asset Location							
Utility Account							
Retirement Unit							
Est. Chg Type	Addition Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs	
0809-050003 LAWRENCE CTY/AUR							
376300-Mains - Plastic							
Mains-Plastic 2"							
Contract Payroll	\$1,511.07	\$32.41	0	0	0	0	
Contractor Work	\$86,822.81	\$212.02	0	0	0	0	
Department Clearings	\$1,307.08	\$28.03	0	0	0	0	
Mechanical Equipment	\$301.50	\$6.70	0	0	0	0	
Overheads Capitalized - Benefits	\$844.69	\$18.12	0	0	0	0	
Overheads Capitalized - General	\$39,068.94	\$95.76	0	0	0	0	
Payroll Taxes	\$229.68	\$4.93	0	0	0	0	
Retirement Value	\$0.00	\$0.00	0	220	0	0	
Stores	\$4,575.06	\$1.72	3481	0	0	0	
Mains-Plastic 4"							
Contract Payroll	\$907.48	\$0.00	0	0	0	0	
Contractor Work	\$72,225.85	\$0.00	0	0	0	0	
Department Clearings	\$784.97	\$0.00	0	0	0	0	
Mechanical Equipment	\$187.60	\$0.00	0	0	0	0	
Overheads Capitalized - Benefits	\$507.28	\$0.00	0	0	0	0	
Overheads Capitalized - General	\$33,363.51	\$0.00	0	0	0	0	
Payroll Taxes	\$137.94	\$0.00	0	0	0	0	
Stores	\$5,952.26	\$0.00	2144	0	0	0	
SubTotal Utility Account:	\$248,727.72	\$399.69	5,625.00	220.00	0.00	0.00	
376100-Mains - Steel							
Mains-Steel 2"							
Contract Payroll	\$0.00	\$550.97	0	0	0	0	
Contractor Work	\$0.00	\$3,869.92	0	0	0	0	
Department Clearings	\$0.00	\$476.59	0	0	0	0	
Mechanical Equipment	\$0.00	\$113.90	0	0	0	0	
Overheads Capitalized - Benefits	\$0.00	\$307.99	0	0	0	0	
Overheads Capitalized - General	\$0.00	\$1,895.00	0	0	0	0	
Payroll Taxes	\$0.00	\$83.75	0	0	0	0	
Retirement Value	\$0.00	\$0.00	0	5732	0	0	
Stores	\$0.00	\$392.04	0	0	0	0	
Mains-Steel 4"							
Contract Payroll	\$0.00	\$32.41	0	0	0	0	
Contractor Work	\$0.00	\$2,341.74	0	0	0	0	
Department Clearings	\$0.00	\$28.03	0	0	0	0	
Mechanical Equipment	\$0.00	\$6.70	0	0	0	0	
Overheads Capitalized - Benefits	\$0.00	\$18.12	0	0	0	0	

Work Order Authorization Information

***** Unit Estimate *****

Asset Location	Utility Account	Retirement Unit	Est. Chg Type	Additon Dollars	Retirement Dollars	Add Qty	Retire Qty	Add Hrs	Retire Hrs
0809-050003 LAWRENCE CTY/AUR									
376100-Mains - Steel									
Mains-Steel 4"									
	Overheads Capitalized - General			\$0.00	\$1,262.95	0	0	0	0
	Payroll Taxes			\$0.00	\$4.93	0	0	0	0
	Retirement Value			\$0.00	\$0.00	0	5	0	0
	Stores			\$0.00	\$618.32	0	0	0	0
	SubTotal Utility Account:			\$0.00	\$12,003.36	0.00	5,737.00	0.00	0.00
380200-Services - Plastic & Copper									
Services-Plastic									
	Contract Payroll			\$78.09	\$0.00	0	0	0	0
	Contractor Work			\$2,568.82	\$0.00	0	0	0	0
	Department Clearings			\$67.55	\$0.00	0	0	0	0
	Overheads Capitalized - Benefits			\$43.65	\$0.00	0	0	0	0
	Overheads Capitalized - General			\$1,096.75	\$0.00	0	0	0	0
	Payroll Taxes			\$11.87	\$0.00	0	0	0	0
	SubTotal Utility Account:			\$3,866.73	\$0.00	0.00	0.00	0.00	0.00
	SubTotal Location:			\$252,594.45	\$12,403.05	5,625.00	5,957.00	0.00	0.00
	Total Unit Estimate:			\$252,594.45	\$12,403.05	5,625	5,957	0	0

***** Class Codes *****

Class Code	Value
cap_expense	capital
CWIP Property Tax Type	MO-CWIP-Distribution Real
ISRS Reason	03 - Bare Steel Replacement
isrs_recov	yes
ohbenefits	yes
ohgen_supv	yes
prod_nonprod	prod
Project Classification	both

Work Order Authorization Information

***** As-Built *****

Asset Location				
Utility Account				
Exp Type				
Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
Used In Utilization:				
0809-050003 LAWRENCE CTY/AURORA				
376100-Mains - Steel				
Retirement				
Contract Payroll	Mains-Steel 2"		\$5,283.84	0
Contract Payroll	Mains-Steel 4"		\$2,936.65	0
Contractor Work	Mains-Steel 4"		\$5,933.28	0
Contractor Work	Mains-Steel Under 2"		\$5,933.28	0
Contractor Work	Mains-Steel 2"		\$5,933.28	0
Department Clearings	Mains-Steel 2"		\$4,570.52	0
Department Clearings	Mains-Steel 4"		\$2,540.20	0
Overheads Capitalized - Benefits	Mains-Steel 4"		\$1,641.59	0
Overheads Capitalized - Benefits	Mains-Steel 2"		\$2,953.67	0
Overheads Capitalized - General	Mains-Steel Under 2"		\$2,521.64	0
Overheads Capitalized - General	Mains-Steel 2"		\$3,037.25	0
Overheads Capitalized - General	Mains-Steel 4"		\$3,006.90	0
Payroll Taxes	Mains-Steel 2"		\$803.14	0
Payroll Taxes	Mains-Steel 4"		\$446.37	0
Retirement Value	Mains-Steel 2"		\$226.68	328
Retirement Value	Mains-Steel 2"		\$171.37	214
Retirement Value	Mains-Steel 2"		\$38.74	52
Retirement Value	Mains-Steel 2"		\$224.07	83
Retirement Value	Mains-Steel 2"		\$176.97	355
Retirement Value	Mains-Steel 2"		\$78.28	70
Retirement Value	Mains-Steel 2"		\$604.12	435
Retirement Value	Mains-Steel 2"		\$374.37	348
Retirement Value	Mains-Steel 2"		\$257.09	84
Retirement Value	Mains-Steel 2"		\$3,601.14	140
Retirement Value	Mains-Steel 2"		\$1,078.41	1,428
Retirement Value	Mains-Steel 2"		\$193.89	29
Retirement Value	Mains-Steel 4"		\$15.21	44
Retirement Value	Mains-Steel 2"		\$64.13	48
Retirement Value	Mains-Steel 2"		\$527.77	339
Retirement Value	Mains-Steel 2"		\$497.91	1,775
Stores	Mains-Steel 4"		\$699.55	0
Stores	Mains-Steel 2"		\$417.50	0
Retirement Total:			\$56,788.81	5,772
376300-Mains - Plastic				
Addition				
Contract Payroll	Mains-Plastic 4"		\$37,075.05	0
Contract Payroll	Mains-Plastic 2"		\$31,872.80	0
Contractor Work	Mains-Plastic 4"		\$22,776.66	0
Contractor Work	Mains-Plastic 2"		\$22,776.66	0
Department Clearings	Mains-Plastic 4"		\$32,069.92	0
Department Clearings	Mains-Plastic 2"		\$27,569.97	0
Overheads Capitalized - Benefits	Mains-Plastic 4"		\$20,724.95	0
Overheads Capitalized - Benefits	Mains-Plastic 2"		\$17,816.90	0
Overheads Capitalized - General	Mains-Plastic 2"		\$14,849.86	0

Work Order Authorization Information

***** As-Built *****

Asset Location	Utility Account	Exp Type	Est Charge Type	Retirement Unit	Job task	Dollars	Quantity
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Used In Utilization:

0809-050003 LAWRENCE CTY/AURORA

376300-Mains - Plastic

Addition

Overheads Capitalized - General	Mains-Plastic 4"					\$15,878.37	0
Payroll Taxes	Mains-Plastic 2"					\$4,844.67	0
Payroll Taxes	Mains-Plastic 4"					\$5,635.41	0
Stores	Mains-Plastic 4"					\$9,001.14	2,151
Stores	Mains-Plastic 2"					\$7,364.51	3,640
Addition Total:						\$270,256.87	6,791

Retirement

Contract Payroll	Mains-Plastic 2"					\$884.16	0
Contractor Work	Mains-Plastic 2"					\$5,933.28	0
Contractor Work	Mains-Plastic Under 2"					\$5,933.28	0
Department Clearings	Mains-Plastic 2"					\$764.80	0
Overheads Capitalized - Benefits	Mains-Plastic 2"					\$494.25	0
Overheads Capitalized - General	Mains-Plastic Under 2"					\$2,521.64	0
Overheads Capitalized - General	Mains-Plastic 2"					\$2,579.05	0
Payroll Taxes	Mains-Plastic 2"					\$134.39	0
Retirement Value	Mains-Plastic Under 2"					\$3,318.60	204
Retirement Value	Mains-Plastic 2"					\$240.75	46
Retirement Value	Mains-Plastic 2"					\$116.26	25
Stores	Mains-Plastic 2"					\$1.94	0
Retirement Total:						\$22,922.40	276

380100-Services - Steel

Retirement

Contract Payroll	Services-Steel					\$62.18	0
Department Clearings	Services-Steel					\$53.79	0
Overheads Capitalized - Benefits	Services-Steel					\$34.76	0
Overheads Capitalized - General	Services-Steel					\$3.98	0
Payroll Taxes	Services-Steel					\$9.45	0
Retirement Value	Services-Steel					\$8.28	12
Retirement Value	Services-Steel					\$4.14	6
Retirement Value	Services-Steel					\$8.28	12
Retirement Value	Services-Steel					\$22.08	32
Retirement Value	Services-Steel					\$2.07	3
Retirement Total:						\$209.01	65

380200-Services - Plastic & Copper

Addition

Contract Payroll	Services-Plastic					\$1,322.40	0
Contractor Work	Services-Plastic					\$8,636.92	0
Department Clearings	Services-Plastic					\$1,143.88	0
Overheads Capitalized - Benefits	Services-Plastic					\$739.22	0
Overheads Capitalized - General	Services-Plastic					\$3,892.22	0
Payroll Taxes	Services-Plastic					\$201.00	0
Stores	Services-Plastic					\$322.10	370
Addition Total:						\$16,257.74	370

Work Order Authorization Information

***** As-Built *****

Asset Location	Utility Account	Exp Type	Retirement Unit	Job task	Dollars	Quantity
Est Charge Type						
Used In Utilization:						
0809-050003 LAWRENCE CTY/AURORA						
380200-Services - Plastic & Copper						
Retirement						
Contract Payroll			Services-Plastic		\$93.26	0
Department Clearings			Services-Plastic		\$80.67	0
Overheads Capitalized - Benefits			Services-Plastic		\$52.13	0
Overheads Capitalized - General			Services-Plastic		\$5.97	0
Payroll Taxes			Services-Plastic		\$14.18	0
Retirement Value			Services-Plastic		\$106.50	31
Retirement Value			Services-Plastic		\$30.78	4
Retirement Value			Services-Plastic		\$5.79	1
Retirement Value			Services-Plastic		\$24.00	4
Retirement Value			Services-Plastic		\$460.80	89
Retirement Value			Services-Plastic		\$5,492.46	471
Retirement Value			Services-Plastic		\$680.19	14
Retirement Value			Services-Plastic		\$214.10	20
Retirement Value			Services-Plastic		\$101.00	3
Retirement Value			Services-Plastic		\$12.49	1
Retirement Value			Services-Plastic		\$4.70	1
Retirement Value			Services-Plastic		\$146.45	16
Retirement Value			Services-Plastic		\$1,128.29	129
Retirement Value			Services-Plastic		\$672.67	79
Retirement Value			Services-Plastic		\$2.88	8
Retirement Total:					\$9,419.49	871
Location Total:		<u>Additon Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>	
		\$286,514.61	6,161	\$89,339.71	6,983	
Used in Utilization:		<u>Additon Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>	
		\$286,514.61	6,161	\$89,339.71	6,983	
Unit Estimate Total:		<u>Additon Dollars</u>	<u>Add Qty</u>	<u>Retirement Dollars</u>	<u>Retire Qty</u>	
		\$286,514.61	6,161	\$89,339.71	6,983	

***** Work Order Retirements *****

Business Segment	GL Account						
Asset Location	Utility Account	Retirement Unit	Asset Description	Vintage	Code	Retire Qty	Retirement Amount
Posted Retirements:							
Missouri West			101000::Gas Plant In Service				
0809-050003 LAWRENCE CTY/AURORA							
376100-Mains - Steel			Mains-Steel 2"				
OCR				1939	URET	1,775	\$497.91