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April 29, 2016

VIA ELECTRONIC FILING

Hon. Herbert H. Hilliard, Chairman
c/o Sharla Dillon
Tennessee Regulatory Authority
502 Deaderick Street, 4th Floor
Nashville, TN 37243

RE: Petition of Tennessee-American Water Company Regarding The Production Costs and Other Pass-Throughs Rider, TRA Docket No. 15-00131

Dear Chairman Hilliard:

Attached for filing please find *Tennessee-American Water Company's Responses to Second Discovery Requests of the Tennessee Regulatory Authority* in the above-captioned matter.

As required, an original of this filing, along with four (4) hard copies, will follow. Should you have any questions concerning this filing, or require additional information, please do not hesitate to contact me.

Very truly yours,

BUTLER SNOW LLP

Melvin J. Malone

clw
Attachment
cc: Linda Bridwell, Tennessee-American Water Company
Wayne Irvin, Assistant Attorney General, Consumer Protection and Advocate Division
Vance Broemel, Assistant Attorney General, Consumer Protection and Advocate Division

The Pinnacle at Symphony Place
150 3rd Avenue South, Suite 1600
Nashville, TN 37201

MELVIN J. MALONE
615.651.6705
melvin.malone@butlersnow.com

T 615.651.6700
F 615.651.6701
www.butlersnow.com

TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 15-00131
SECOND DISCOVERY REQUEST OF THE
TENNESSEE REGULATORY AUTHORITY

Responsible Witness: Linda C. Bridwell

Question:

1. Attached to this data request is Staff's Chemical Workpapers, which includes an inventory schedule for each chemical. As shown on Staff's Chemical Workpapers, there are differences between our calculation and the Company's calculation of the following expenses: Fluoride, Chlorine, Sodium Hydroxide, Polymer, Phosphate Orhtopoly and Suck Creek. First, the Company appears to have used incorrect beginning balances for some its chemicals, instead of the ending balances from Docket No. 15-00001. Secondly, the Company's additions for several chemicals do not match the Company's invoices provided. Please provide reconciliation for these chemical accounts.

Response:

As TAWC indicated in response to Item 6 of the TRA's First Discovery Request, TAWC erroneously used the October 2014 ending balances on chemical inventories rather than the November 2014 ending balances. This does not change the overall expenses for chemicals in the PCOP rider. However, TAWC filed in response to that Item 6 a revised Chemical Workpapers that includes the correct beginning inventory balances. Please refer to the attachment to that response.

With regard to the Sodium Hydroxide (1201423), in the monthly reconciliation TAWC erroneously included inventory changes from the chemical vendor ADC that were actually a polymer EC-309 on the vendor invoice. Further, TAWC erroneously did not include any inventory changes on the "Monthly Reconciliation" tab on the original filing for polymer. In the revised Chemical Workpapers filed in response to Item 6 of the TRA's First Discovery Request, TAWC corrected that inventory on the "Monthly Reconciliation" tab and correctly labelled the "ADC" invoices with Polymer EC-309 instead of Sodium Hydroxide. Please refer to the attachment to that response. Again, correcting those inventory reconciliations does not change the overall expenses for chemicals in the PCOP rider.

With regard to the SAP issued cost for Chlorine, Fluoride, Sodium Hydroxide (1201423), Sodium Hypochlorite and Phosphate Ortho-Poly, the differences are fairly minor. When reviewing the materials balance information in SAP, if an adjustment is made in SAP to remove a charge for chemicals, there is a second step to remove the amount of chemicals in inventory. If the second step is not completed, it will dilute the inventory cost in SAP,

thus reducing the issued cost during the month from SAP. The net effect of these adjustments would be to increase the chemical expense by $2,703.41. However, with the review period accounts closed in SAP, it would not be possible to make this correction in SAP, nor does TAWC believe it is appropriate to include an increase to the requested chemical expenses in the proposed PCOP calculation without the correction in SAP.

Going forward, TAWC will provide a monthly reconciliation to the SAP issued cost in each filing.

TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 15-00131
SECOND DISCOVERY REQUEST OF THE
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Responsible Witness: Linda C. Bridwell

Question:

2. Expenses from Polymer Account No. 1201701 are excluded from the worksheet. Please provide sufficient support justifying the Company's Polymer SAP cost.

Response:

As noted in response to Item 6 of the TRA's First Discovery Request and in response to Item 1 of this same discover request, the Polymer EC-309 included in the original Chemicals Workpapers was reconciled on the "Monthly Reconciliation" tab under Sodium Hydroxide, and was listed on the "ADC" tab as Sodium Hydroxide. However, the Invoices from ADC listed the product as EC-309 which is a form of the chemical Polyaluminum Chloride for water treatment supplied by ADC. It appears that this was a mistake in the previous filing as well. The overall chemicals expense does not change, as the "Monthly Totals" pulled the EC-309 costs from the general ledger and not from the monthly reconciliation. A revised Chemicals Workpapers reflecting that correction was attached to the response to Item 6 of the TRA's First Discovery Request. This corrected the chemical inventory on the "Monthly Reconciliation" tab for both Sodium Hydroxide and Polymer, and revised the "ADC" listing to Polymer EC-309 as appropriate.

The invoices from ADC reflecting the purchases of EC-309 were provided in the initial filing in the file Chemical Invoices on pages 98 – 106, pages 109 -112, pages 114 – 116, pages 118 – 120 and page 124 of 134. As additional support, the Materials Safety Data Sheet and specification sheet for EC-309 have been attached to this response.

American Development Corporation
821 William D. Jones Blvd, Fayetteville TN 37334
888-542-8561 Fax - 931-438-2673
www.adc-chem.com

Material Safety Data Sheet

This Material Safety Data Sheet conforms to the requirements of ANSI z400.1.
This MSDS complies with 29 CFR 1910.1200 (Hazard Communication Standard)
Read this MSDS before handling & disposing of this product.

Section 1: Material Identification and Company Identification

Product Identity: EC-309
Distributed By: American Development Corporation
Address: 821 William D. Jones Blvd.
City/State: Fayetteville TN 37334
Phone: 888-542-8561
Chem-Tel 800-255-3924

Section 2: Hazardous Ingredients

Component	CAS NO.	Concentration	Hazard
Polyaluminum Chloride	1327-41-9	<40%	Corrosive

Section 3: Hazards Identification

Primary routes of exposure: Skin or eye contact, inhalation.
Harmful if swallowed.

Potential Health Effects:

Eyes: Causes irritation & inflammation of the eye. May cause severe eye damage.

Skin: May cause skin irritation.

Ingestion: May cause abdominal pain, nausea, and/or vomiting. Can cause burns of the mouth, bleeding stomach, incoordination, muscle spasms, and/ or kidney injury.

Inhalation: Mists may be irritating to the mucous membranes

Section 4: First Aid Measures

Eye Contact: Immediately flush with plenty of water for a least 15 min. Holding eyelids open. Use eye wash fountain if available. Get medical attention if irritation persists.

Skin Contact: Immediately wash the affected area with large amounts of water while removing contaminated clothing. Call a physician.

Ingestion: Do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Inhalation: Move to fresh air. Support respiration. Call a physician.

Section 5: Fire Fighting Measures:

Extinguishing Media: This material is not combustible. Use extinguishing media appropriate for surrounding fire.

Flash Point, Deg F: Not Flammable

NFPA Rating:

Health	1
Fire	0
Reactivity	0
Hazard	Corrosive

Section 6: Accidental Release Measures:

Land Spill: Wear recommended PPE. Dike spill using soil, sand or compatible commercial absorbent. Dispose according to Federal, State and local regulations.

Water Spill: Wear recommended PPE. Stop or divert water flow. Dike contaminated water and remove for disposal and/or treatment. As appropriate, notify all downstream users of possible contamination.

Section 7: Handling and Storage:

Avoid contact with eyes, skin and clothing. Avoid breathing mists. Do not swallow. Store in cool areas in tightly closed containers. Prevent material from coming in contact with common metals due to it's corrosive nature.

Section 8: Exposure Controls/Personal Protection

Control Measures: Use local or general mechanical exhaust ventilation system capable of maintaining emissions in the work area.

Recommended Personal Protective Equipment:

Respirator: Self-contained breathing apparatus (SCBA) with full face piece approved by NIOSH/MSHA

Eyes: chemical goggles, face shield

Gloves: Neoprene, PVC or rubber gloves

Clothing: Boots & rain suit

Other protective measures: Emergency eye wash and safety showers for first aid should be available near work area.

Section 9: Physical Properties

Appearance:	Clear to yellow-brown	**Specific Gravity**	1.32
Physical State:	Liquid	**Density (lbs/gal)**	10.95
Odor:	Slight	**pH**	3.0 - 4.0
		% Volatile	n/a
		Solubility	Complete
		Flash Point	n/a
Boiling Point:	214° F		
Freezing Point:	21° F		

Section 10: Stability and Reactivity

Stability: Stable at ambient temperatures
Polymerization: Will not occur
Conditions to avoid: Alkaline materials, strong oxidizers
Incompatible materials: Strong oxidizing agents, alkalis

Hazardous decomposition products:
Not known

Section 11: Toxicological Information

Medical conditions aggravated by exposure:

Target Organs:
Corrosive to all body tissues by all routes of exposure.
Primary routes of exposure: eyes, skin, mucous membranes, lungs.

Section 12: Ecological Information

Environmental Fate: This material is completely soluble in water.
No specific environmental fate information is available.
Environmental Effects: The aquatic toxicity for this material has not been determined.

Section 13: Disposal Considerations

Review federal, state and local government requirements prior to disposal.
Whatever cannot be saved for recovery or recycling, including containers should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options.

Section 14: Transportation Information

D.O.T. Proper Shipping Name:	Corrosive Liquid, Acidic, Inorganic, N.O.S. Polyaluminum chloride
D.O.T. Hazard Class:	8
UN number:	3264
Packing Group:	III
D.O.T. Labels:	**Primary:** Corrosive **Subsidiary:** n/a
D.O.T. Placards:	Corrosive
2004 Emergency Response Guidebook Number	154

Section 15: Regulatory Information

TSCA Inventory Status:	Not listed
SARA - 313 Listed Chemicals:	Not listed
RCRA Hazardous Waste Number:	Not listed
CERCLA:	Not listed
Reportable Quantity	n/a

Section 16: Other Information

CERCLA Comprehensive Environmental Response, Compensation and Liability Act of 1980
IARC International Agency for Research on Cancer
MSHA Mine Safety and Health Administration
NIOSH National Institute for Occupational Safety and Health
NTP National Toxicology Program
OSHA Occupational Safety and Health Administration
PEL-C OSHA Permissible Exposure Limit-OSHA Ceiling Exposure Limit
RCRA Resource Conservation and Recovery Act
SARA Superfund Amendments and Reauthorization Act of 1986
TLV-TWA Threshold Limit Value - Time Weighted Average
TSCA Toxic Substances Control Act

American Development Corporation

821 William D. Jones Blvd.

Fayetteville TN 37334

888-542-8561 Fax - 931-438-2673

www.adc-chem.com

EC-309

Applications

Coagulation and Flocculation

Description

Appearance:	Clear to yellow-brown	**pH:**	3.0 - 4.0
Physical State:	Liquid	**lbs/gal:**	10.95
Component	**Polyaluminum Chloride**	**Odor:**	Slight
Concentration:	<40%	**Boiling Point:**	214° F
Specific Gravity:	1.32	**Freezing Point:**	21° F

Shipping Information

Proper shipping name:	Corrosive Liquid, Acidic, Inorganic, N.O.S. (Polyaluminum chloride)		
D.O.T. Hazard Class:	8	**UN number:**	3264
Packaging Group	III	**Hazard**	Corrosive

Emergency Information

NFPA Rating:	**Health**	**Fire**	**Reactivity**
	1	0	0

2004 Emergency Response Guidebook Number: 154

Handling Safety

Personal protective equipment during handling should include chemical goggles and/or face shield, chemical resistant gloves, boots and rain suit.
In cases where significant exposure exists, use an approved NIOSH/MSHA breathing apparatus.

STATE OF Kentucky)
)
COUNTY OF Fayette)

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Linda C. Bridwell, being by me first duly sworn deposed and said that:

She is appearing as a witness on behalf of Tennessee-American Water Company before the Tennessee Regulatory Authority, and if present before the Authority and duly sworn, the data requests responses are accurate to the best of her knowledge.

Linda C. Bridwell

Linda C. Bridwell

Sworn to and subscribed before me
this 27th day of April, 2016.

Peggy A. Slone

Notary Public

My Commission Expires: 10/3/2016