HOUSE FILE 2077
BY SALMON

A BILL FOR

An Act relating to the printing and physical attributes of ballots.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:

Section 1. Section 43.27, Code 2022, is amended to read as follows:

43.27 Printing of ballots.

1. The text printed on ballots of each political party shall be in black ink, on separate sheets of paper, uniform in quality, texture, and size, with the name of the political party printed at the head of the ballots, which ballots shall be prepared by the commissioner in the same manner as for the general election, except as provided in this chapter. The commissioner may print the ballots for each political party using a different color for each party. If colored paper is used, all of the ballots for each separate party shall be uniform in color.

2. Ballots shall be printed on unique, controlled-supply watermarked clearing bank specification 1 security paper with all of the following characteristics:

a. Secure holographic foil that is a minimum of ten square millimeters and a maximum of twenty square millimeters with a proprietary original image in visible and multiple-color invisible ultraviolet inks. The visible overprint must be translucent so that the hologram image strikes through the printed image when viewed at different angles and must be cured in such a way that any tampering of the image causes visible damage to the hologram. The holographic foil design and origination artwork must be exclusively owned and controlled by the security printer.

b. Branded overprint of any hologram that personalizes the hologram with customer logo.

c. Custom complex security background designs with banknote-level security.

d. Secure variable digital infill.

e. Thermochromic, tri-thermochromic, photochromic, or optically variable inks.

f. Stealth numbering in ultraviolet, infrared, or taggant inks.

g. Two-color rainbow print invisible ultraviolet numismatic designs with fine line security relief design that follows the primary image's design exactly and with a minimum line weight of four hundred twenty-four ten thousandths millimeters.

h. Unique forensic fraud detection technology that is built into security inks.

i. Invisible ultraviolet microtext with an ultraviolet image minimum height of three-tenths millimeters and maximum height of five-tenths millimeters.

j. Raster imaging printed on seventy-five percent of the document face in a minimum two-color invisible ultraviolet ink with a minimum line weight of two hundred forty-two ten thousandths millimeters and a maximum line weight of eighty-four thousandths millimeters.

k. Three-color invisible ultraviolet guilloche with an anticopy feature that is a custom geometric design specific to the document and with a high level of secure fine line detail consisting of multiple line weight and a minimum line weight of two hundred forty-two thousandths millimeters.

l. Visible colored overt ink with embedded covert, near infrared machine-readable taggant that is capable of detection through proprietary infrared wavelength light source excitation and related infrared wavelength emission characteristics that confirm authenticity through a complex temporal measurement when read by a handheld, rechargeable, battery-operated proprietary detector.

m. Molecular level, forensic-covert security feature included in the infrared tagged ink prescribed in paragraph *"l"*. The proprietary molecular marker must be authenticated by laboratory analysis using gas chromatography mass spectrometry and the concentration in the related ink cannot be more than one part per million.

n. Microprinting that requires banknote graphics software and protects infill areas from fraudulent alterations.

o. Multicolor invisible primary fluorescent elements that

are printed in register to create a rainbow effect background. The image must incorporate multiple security graphic techniques and must be generated using anticounterfeit design software that is commercially available only for approved and accredited printers.

p. Serialized black quick response code in which the same code is printed on the top left corner and bottom right corner and that can be read by native quick response functions on personal electronic devices that redirect the voter to an internet-based voter information page and that tracks the voter's ballot as it is processed.

q. Paper that is eight and one-half inches wide by twenty-two inches long and that weighs eighty grams per square meter.

r. A paper receipt for the voter that is a perforated portion of the ballot that is suitable for the voter to remove from the ballot after completing the ballot and that contains the lot number and sequence number of the sheet of paper on which the ballot is printed.

3. A vendor that provides fraud countermeasures that are contained in or on the paper used for ballots shall be ISO 27001 certified, ISO 17025 certified, ISO 45001 certified, ISO 14001 certified, ISO 14298 certified, or ISO 9001:2015 certified.

Sec. 2. Section 49.57, subsection 1, Code 2022, is amended to read as follows:

1. ~~They~~ The ballots shall be on unique, controlled-supply watermarked clearing bank specification 1 security paper uniform in color, through which the printing or writing cannot be read, with all of the following characteristics:

a. Secure holographic foil that is a minimum of ten square millimeters and a maximum of twenty square millimeters with a proprietary original image in visible and multiple-color invisible ultraviolet inks. The visible overprint must be translucent so that the hologram image strikes through the printed image when viewed at different angles and must be cured

in such a way that any tampering of the image causes visible damage to the hologram. The holographic foil design and origination artwork must be exclusively owned and controlled by the security printer.

b. Branded overprint of any hologram that personalizes the hologram with customer logo.

c. Custom complex security background designs with banknote-level security.

d. Secure variable digital infill.

e. Thermochromic, tri-thermochromic, photochromic, or optically variable inks.

f. Stealth numbering in ultraviolet, infrared, or taggant inks.

g. Two-color rainbow print invisible ultraviolet numismatic designs with fine line security relief design that follows the primary image's design exactly and with a minimum line weight of four hundred twenty-four ten-thousandths millimeters.

h. Unique forensic fraud detection technology that is built into security inks.

i. Invisible ultraviolet microtext with an ultraviolet image minimum height of three-tenths millimeters and maximum height of five-tenths millimeters.

j. Raster imaging printed on seventy-five percent of the document face in a minimum two-color invisible ultraviolet ink with a minimum line weight of two hundred forty-two thousandths millimeters and a maximum line weight of eighty-four thousandths millimeters.

k. Three-color invisible ultraviolet guilloche with an anticopy feature that is a custom geometric design specific to the document and with a high level of secure fine line detail consisting of multiple line weight and a minimum line weight of two hundred forty-two thousandths millimeters.

l. Visible colored overt ink with embedded covert, near infrared machine-readable taggant that is capable of detection through proprietary infrared wavelength light source excitation

and related infrared wavelength emission characteristics that confirm authenticity through a complex temporal measurement when read by a handheld, rechargeable, battery-operated proprietary detector.

m. Molecular level, forensic-covert security feature included in the infrared tagged ink prescribed in paragraph *"l"*. The proprietary molecular marker must be authenticated by laboratory analysis using gas chromatography mass spectrometry and the concentration in the related ink cannot be more than one part per million.

n. Microprinting that requires banknote graphics software and protects infill areas from fraudulent alterations.

o. Multicolor invisible primary fluorescent elements that are printed in register to create a rainbow effect background. The image must incorporate multiple security graphic techniques and must be generated using anticounterfeit design software that is commercially available only for approved and accredited printers.

p. Serialized black quick response code in which the same code is printed on the top left corner and bottom right corner and that can be read by native quick response functions on personal electronic devices that redirect the voter to an internet-based voter information page and that tracks the voter's ballot as it is processed.

q. Paper that is eight and one-half inches wide by twenty-two inches long and that weighs eighty grams per square meter.

r. A paper receipt for the voter that is a perforated portion of the ballot that is suitable for the voter to remove from the ballot after completing the ballot and that contains the lot number and sequence number of the sheet of paper on which the ballot is printed.

Sec. 3. Section 49.57, Code 2022, is amended by adding the following new subsection:

NEW SUBSECTION. 8. A vendor that provides fraud countermeasures that are contained in or on the paper used for

ballots shall be ISO 27001 certified, ISO 17025 certified, ISO 45001 certified, ISO 14001 certified, ISO 14298 certified, or ISO 9001:2015 certified.

EXPLANATION

The inclusion of this explanation does not constitute agreement with the explanation's substance by the members of the general assembly.

This bill relates to the printing of ballots. The bill requires each ballot to be printed on unique, controlled-supply watermarked clearing bank specification 1 security paper and includes a number of security measures enumerated in the bill. The bill also requires a vendor that provides ballot security measures to hold one or more security-related certifications.