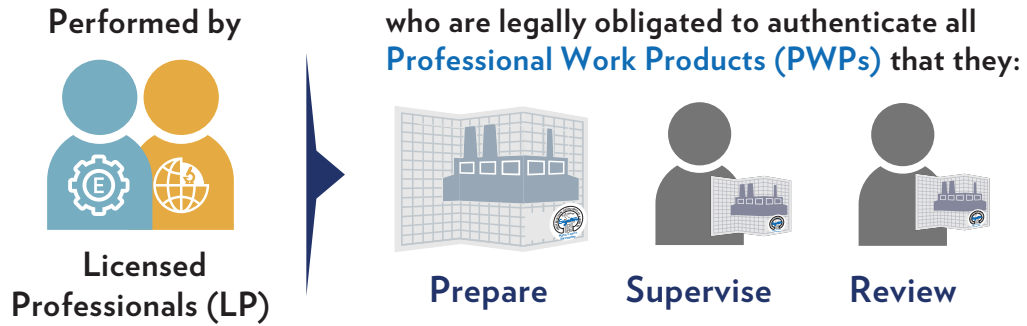


WHAT IS AUTHENTICATION AND VALIDATION?

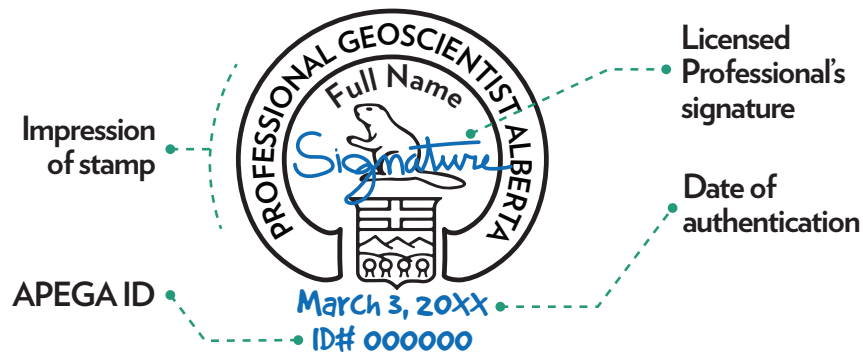
AUTHENTICATION



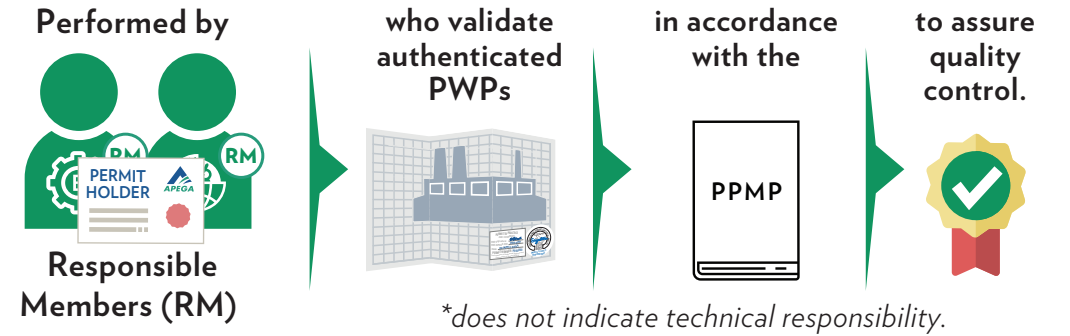
Authentication demonstrates that the licensed professionals:



Authentication includes 4 components:



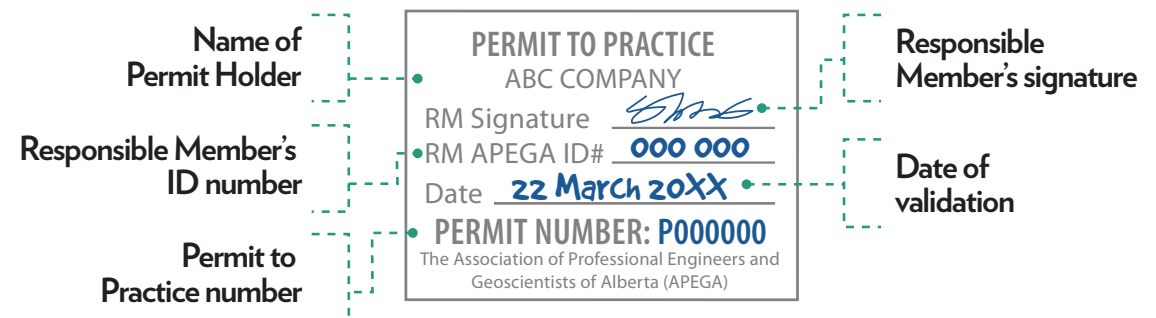
VALIDATION*



Validation ensures PWP are consistent with:



Validation includes 5 components:



HOW TO AUTHENTICATE AND VALIDATE



PHYSICAL AUTHENTICATION



Applying an ink impression

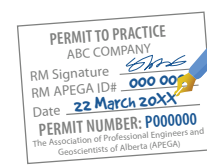


Physically signing, dating, and including your APEGA ID

PHYSICAL VALIDATION



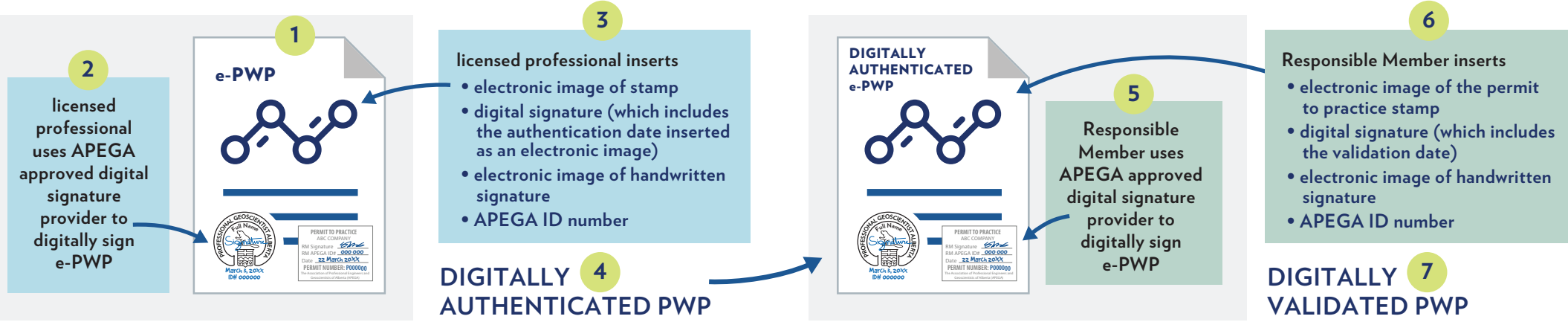
Applying an ink impression (or insert all required information) with the permit holder's permit number and name



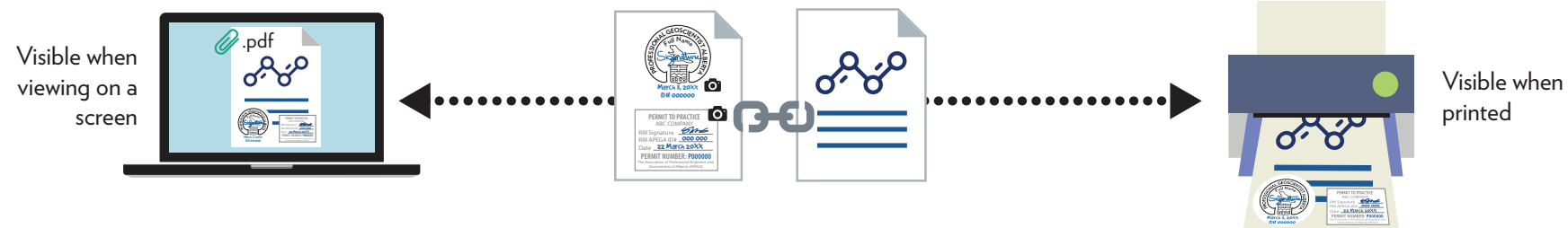
Physically signing, dating, and including your APEGA ID

DIGITAL AUTHENTICATION

DIGITAL VALIDATION



A digital signature irrefutably links the professional work product to a licensed professional or Responsible Member.



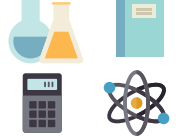
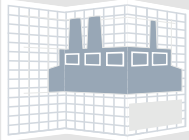

For more information or assistance,

Email: professionalpractice@apega.ca

Toll-free
1-800-661-7020

WHAT TO AUTHENTICATE AND VALIDATE?

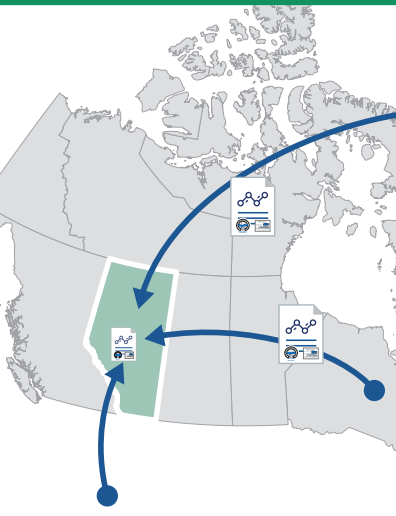

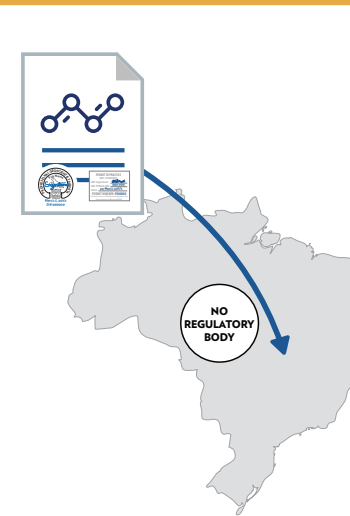

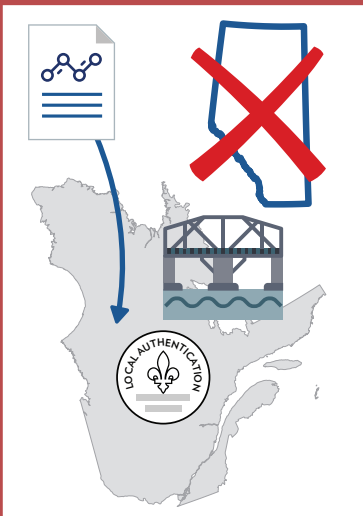
THE AUTHENTICATION TEST

- | | | | | |
|----------|---|---|--|--------------------------------|
| 1 | Does the output contain technical information? |  | YES
<input checked="" type="checkbox"/> | NO
<input type="checkbox"/> |
| 2 | Is the technical information complete and final for the intended purpose of the output? |  | YES
<input checked="" type="checkbox"/> | NO
<input type="checkbox"/> |
| 3 | Will others rely on the technical information related to the output's intended purpose? |  | YES
<input checked="" type="checkbox"/> | NO
<input type="checkbox"/> |

If the answers to these 3 questions are "YES", the output is a professional work product and must be authenticated and validated.



IMPORTED AND EXPORTED PROFESSIONAL WORK PRODUCTS (PWP_s)

	<h3 style="margin: 0;">IMPORTED</h3> <p style="margin: 0;">All PWPs developed or imported for use in Alberta must be authenticated and validated using APEGA protocols.</p> 		<h3 style="margin: 0;">EXPORTED</h3> <p style="margin: 0;">PWPs developed in Alberta for use outside Alberta in a jurisdiction that has no regulatory body must also be authenticated and validated using APEGA protocols.</p> 		<h3 style="margin: 0;">ONLY EXCEPTION</h3> <p style="margin: 0;">If a PWP will never be used in Alberta and the licensed professional and permit holder are licensed with the exported jurisdiction's regulatory body, the licensed professional and permit holder may use the protocols of the destination's jurisdiction.</p>
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COMMERCIAL OR CUSTOMIZED ENGINEERED GOODS

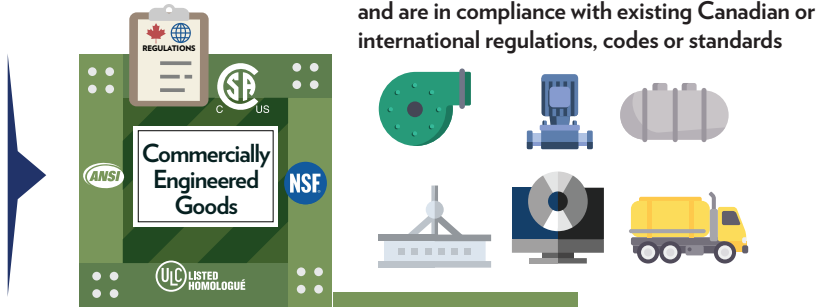


COMMERCIALLY ENGINEERED GOODS

are purchased commercially,

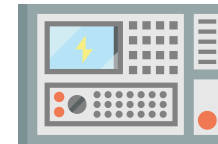
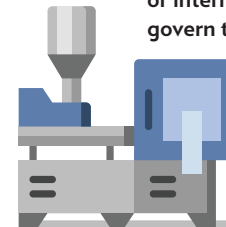


designed and manufactured by 3RD party



and are in compliance with existing Canadian or international regulations, codes or standards

CUSTOMIZED ENGINEERED GOODS



are products for which there are no applicable Canadian or international regulations, codes, or specifications that govern the entire design or manufacture of the products

WHEN IS AUTHENTICATION AND VALIDATION REQUIRED?

If purchased commercially and used for its intended purpose as stated in the manufacturer's specifications.

NOT REQUIRED

If the user deviates from the designer's or manufacturer's published specifications.

REQUIRED FOR DEVIATIONS

If the good is integrated into a system.

REQUIRED FOR OVERALL SYSTEM

EXAMPLES OF INTEGRATION INTO OVERALL SYSTEMS

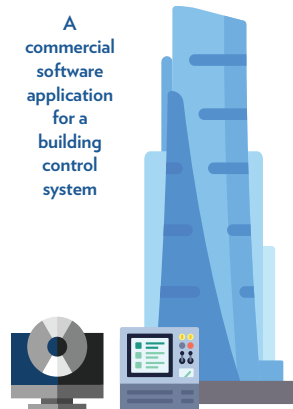
A turbine in a mechanical system



A pump in a fire suppression system



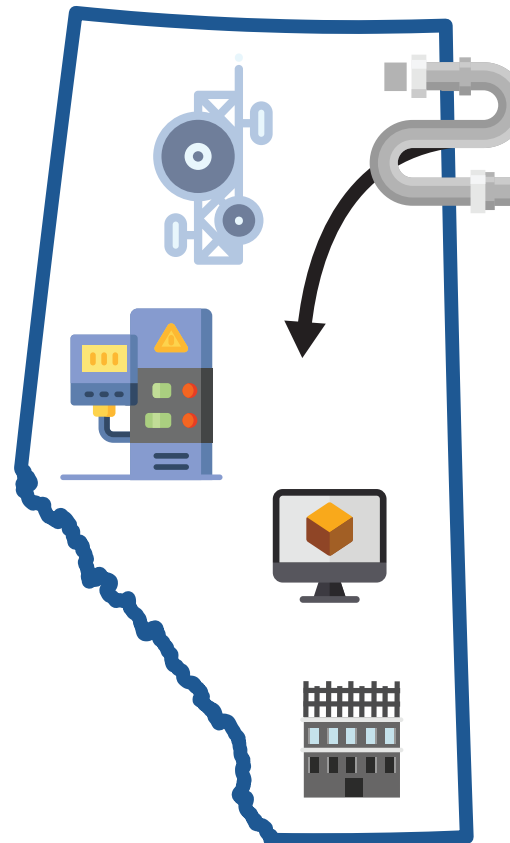
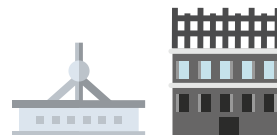
A commercial software application for a building control system



A pressure vessel in a pipeline system



A prefabricated beam or truss in a structure



WHEN IS AUTHENTICATION AND VALIDATION REQUIRED?

All PWP's related to customized engineered goods, including those designed, constructed, manufactured or erected in Alberta, or imported into Alberta, must be authenticated by an APEGA licensed professional and, if applicable, validated by a permit holder.

For more information or assistance,

Email: professionalpractice@apega.ca

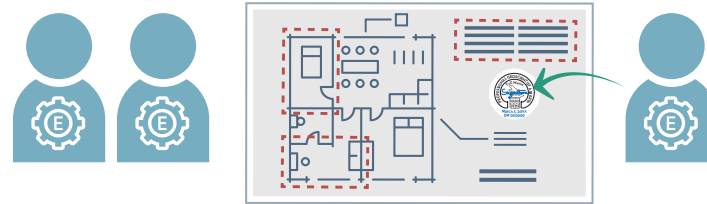
Toll-free
1-800-661-7020

PROCEDURES FOR MULTIPLE CONTRIBUTORS

MULTIPLE PROFESSIONALS FROM A SINGLE-DISCIPLINE

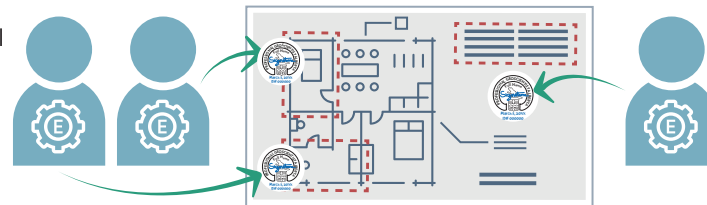
OPTION 1

One licensed professional authenticates and takes responsibility for the entire professional work product. They then forward the PWP on to the Responsible Member.



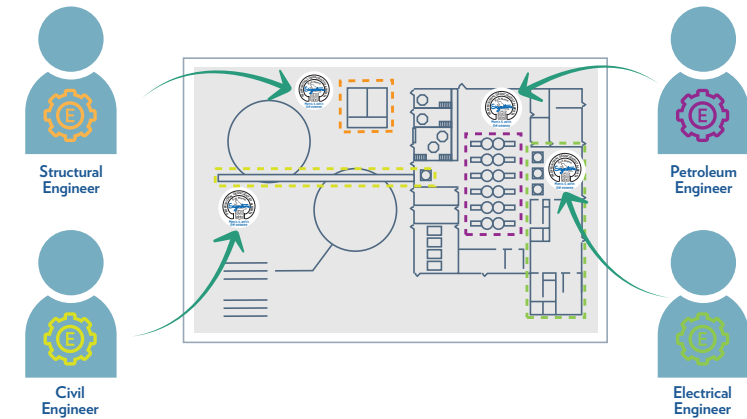
OPTION 2

Each licensed professional authenticates their professional work contribution and clearly indicates the boundaries and limitations of their authentication. They then forward the PWP on to the Responsible Member.



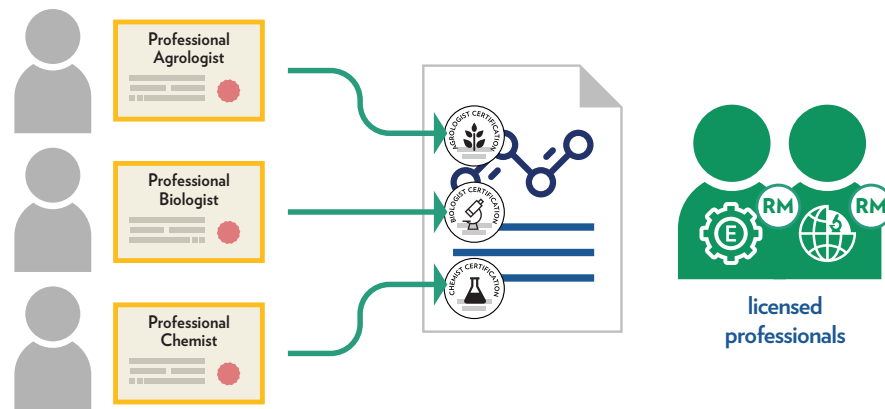
MULTIPLE CONTRIBUTORS FROM MULTIPLE DISCIPLINES

Professional work products that include several disciplines must have the work of each discipline authenticated by at least one licensed professional from the discipline taking responsibility for the work within that discipline, and the boundaries of their work must be clearly indicated. They then forward the PWP on to the Responsible Member.



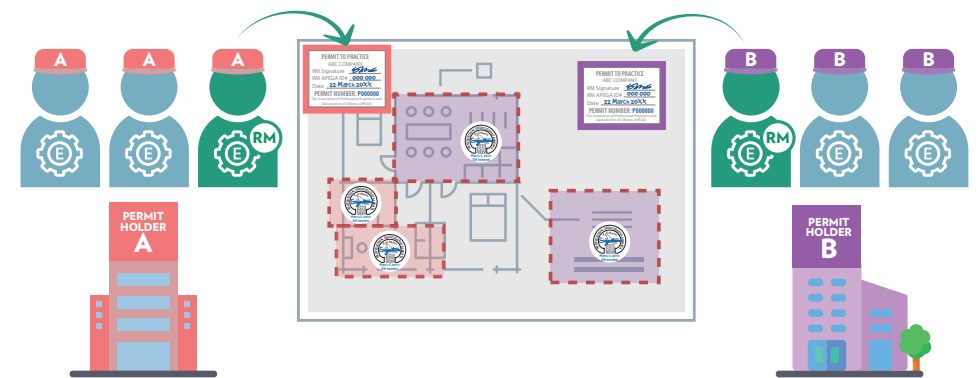
NON-APEGA PROFESSIONAL CONTRIBUTORS

An APEGA licensed professional using an output that was created by non-engineer or non-geoscience professionals who have certification privileges from other professional associations, must request that the work be certified in accordance with their respective professions' regulatory standards.



MULTIPLE CONTRIBUTORS FROM MULTIPLE PERMIT HOLDERS

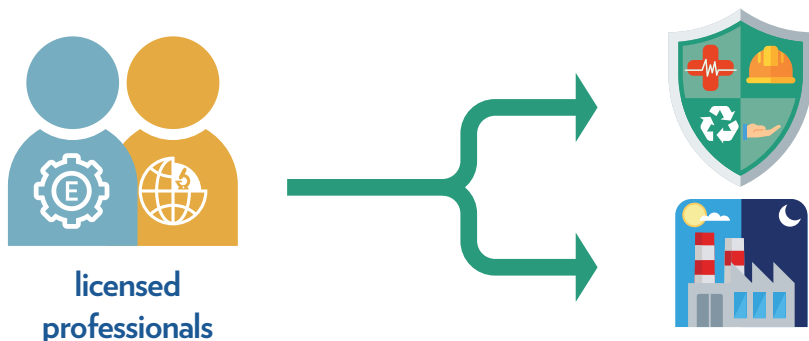
When licensed professionals working under different permit holders produce a professional work product, a Responsible Member from each permit holder must validate the appropriate portion of the professional work product already authenticated by their respective licensed professionals.



AUTHENTICATION FOR CONTINUOUS OPERATIONS AND FIELD REVISIONS OF PROFESSIONAL WORK PRODUCTS

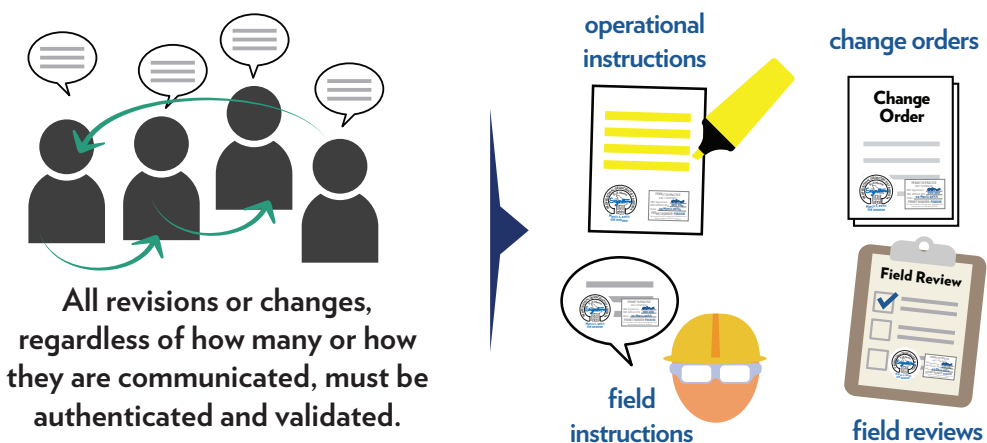
IMPORTANCE OF AUTHENTICATION

APEGA recognizes that engineering and geoscience solutions during continuous operations may be needed.

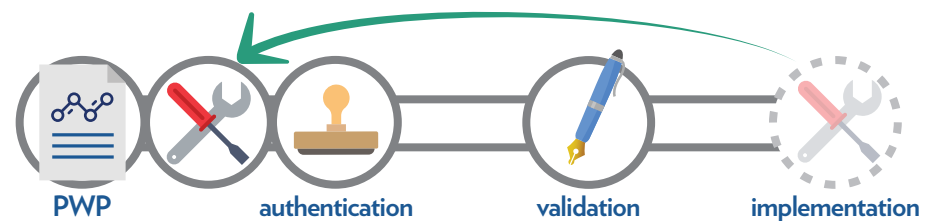


Licensed professionals and Responsible Members are obligated to preserve the health, safety, and welfare of the public, and to maintain high regard for the environment when considering options to preserve continuous operations.

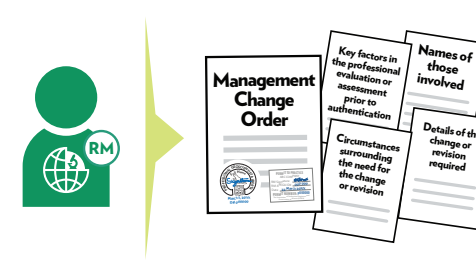
FIELD CHANGES OR REVISIONS



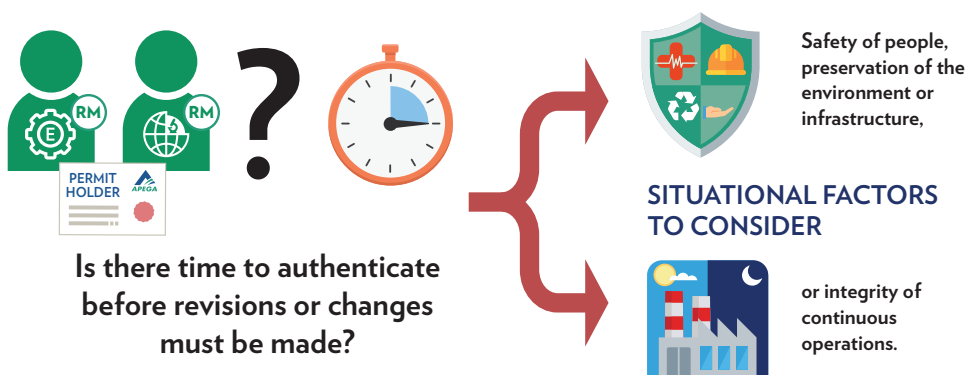
WHEN AUTHENTICATION BEFORE IMPLEMENTATION IS NOT FEASIBLE



The Responsible Member or licensed professional must immediately document the circumstances and details surrounding the change or revision, and a summary of the key factors in the professional evaluation or assessment used to determine that an immediate change or revision needed to happen before authentication. The change or revision must then be authenticated as soon as possible.



TIMING OF AUTHENTICATION



For more information or assistance,

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Toll-free
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This reference guide summarizes the key content described in the *Authenticating Professional Work Products* standard. It does not replace the standard.