Anatomy of Russian Disinformation Campaigns Against Ukraine's Nuclear Energy Sector

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JSC, Energoatom – the National Operator of Nuclear Power Plants in Ukraine:

- Khmelnytskyi NPP
- Rivne NPP
- South Ukraine NPP
- Zaporizhzhia NPP (since 2022 temporarily occupied by Russia)

- Energoatom secures over 55% of overall Ukraine's electricity consumption
- Appr. 35,000 manpower
- Nuclear energy presently forms the backbone of Ukraine's power generation within wartime
- Key role of nuclear power plants within the country's energy resilience has increased significantly
- Thanks to nuclear generation, Ukrainians still have electricity
- development of nuclear energy sector is a strategic priority enshrined in Ukraine's Energy Strategy upto 2050 and international commitments to reduce national carbon emissions

It is evident that Ukraine’s energy infrastructure has become a key target of Russian attacks — both through combat strikes and in the field of disinformation as well.

The enemy understands that nuclear power is a pillar of Ukraine’s energy resilience and a source of baseload generation.

Hence, it is a frequent target in the information war.

Russia’s Disinformation Objectives in the Nuclear Energy Domain

- Undermine public trust to safety and security of Ukrainian NPPs
- Provoke public panic and fear
- Compromise JSC, Energoatom as an manageable and reliant agency
- Undermine confidence among international partners
- Devalue cooperation between Ukraine and the IAEA and other international institutions

The ramp up disinformation forced Energoatom swiftly learn to detect, analyze, and debunk malign influence operations

Our team is currently monitor and anlyse Russian disinformation narratives, which can be tentatively clustered as follows:

- Abandon Russian nuclear fuel import and localization of production of required for NPPs equipment and components
- Apocalyptic and emergency scenarios at Ukrainian nuclear power plants
- Compromisig of public agencies and managerial decisions in the field of nuclear energy
- Situation with nuclear safety and security at the temporarily occupied Zaporizhzhia Nuclear Power Plant

Case Study #1: Phasing out Russian Monopoly on Nuclear Fuel Supply. International practices in nuclear fuel supply diversification.

- Even before the full-scale Russian invasion to Ukraine,the Energoatom launched cooperation with Westinghouse Electric (USA) to diversify fuel supply and equipment manufacturing for VVER-type nuclear reactors (as an alternative to Rosatom Corp.). Since 2022, this partnership has intensified, breaking Russia's monopoly on nuclear fuel and technologies.
- Energoatom, in collaboration Westinghouse, designed and certified nuclear fuel rods sets for VVER-440 reactors. This fuel has been successfully loaded and commissioned in the Rivne NPP reactors since September 2023.
- Fuel for VVER-1000 reactors was also developed and has been used, and is still laoded in some reactors at the Zaporizhzhia NPP. Along with Ukraine, the Czech Republic, Bulgaria, and Finland have also drifted to replace Russian TVELs (fuel rods sets).
- The Energoatom production facilities have successfully localized and ramped up the manufacturing of necessary equipment and components for Ukrainian nuclear power plants

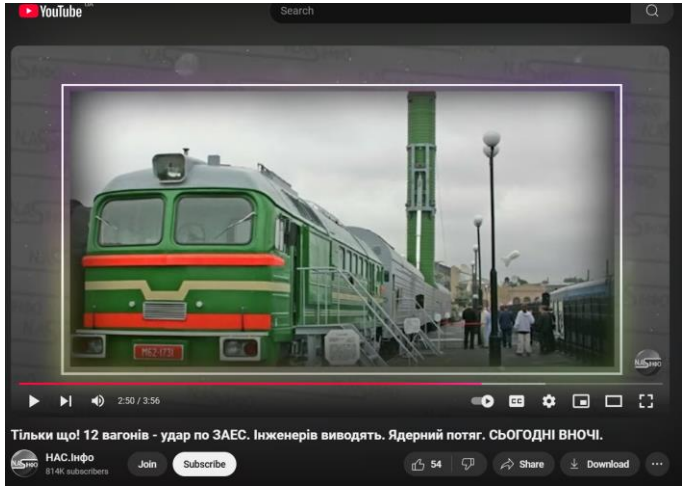
Almost immediately after the loading of American-origin nuclear fuel at the Rivne NPP, an avalanche of fakes and disinformation about radiation leaks flooded Ukrainian media domain. The following narratives amplified in the information space:

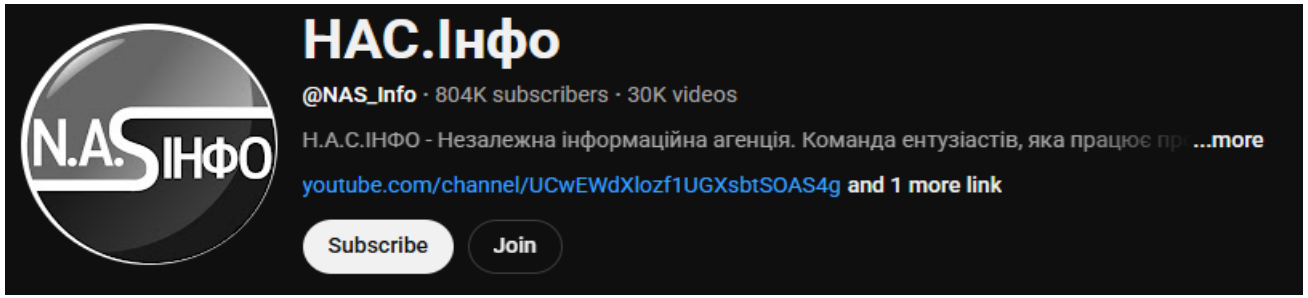
"Russians designed and built up NPPs in Ukraine, so using American fuel without Russia's approval could lead to a nuclear disaster"

"Problems with American Westinghouse fuel have revealed at the Rivne NPP"

"Residents of the Rivne region should prepare for the worst – a possible radiation accident at the NPP"

Case Study #2: “New Chernobyl” Narrative. Apocalyptic and Emergency Scenarios at Ukrainian NPPs





Russian propaganda effectually utilizes state-of-the-art IT-technologies – Large Language Models (i.e., AI) for generation of media content that compromises Ukraine’s nuclear sector and its international reputation as predicted and reliant partner.

Analysis of the source's meta-data and its content immediately reveals hints of a malicious influence operations:

- A huge volume of videos (over 30,000 clips)
- The Ukrainian audio tracks contain linguistic errors, illogical, and contradictory statements.
- Primarily appeals to the emotional aspects of Ukrainian YouTube users (clickbait headlines, rapid video cuts, AI-generated voiceovers designed within the format of "heard-horrified-shared" reaction).
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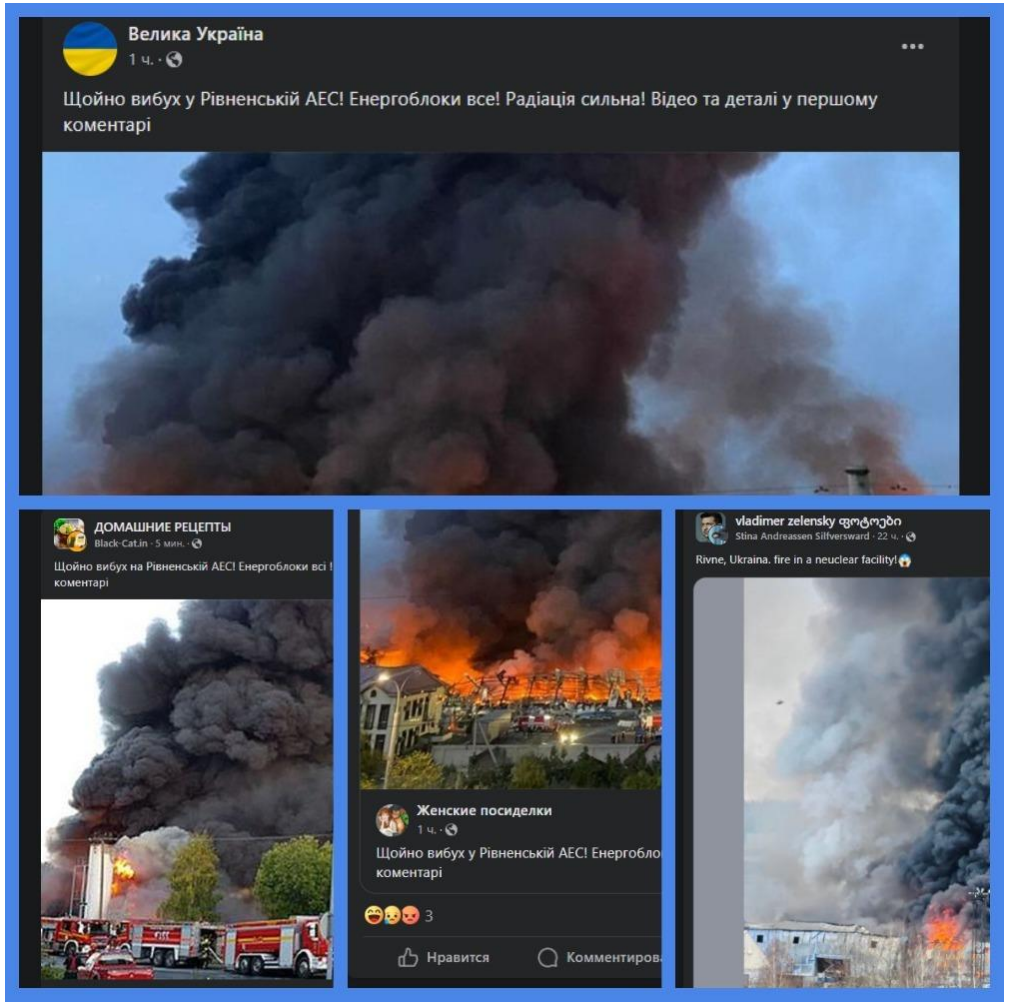
Case Study #2: “New Chernobyl” Narrative
Apocalyptic and Emergency Scenarios at Ukrainian NPPs



Russian propaganda rapidly adapts to information events.

After the barbaric 2024 strike on Dnipro with "Oreshnik“-type ballistic missile, a mass distribution of identical messages about "explosions and radiation leaks" at the Rivne NPP began through dormant accounts and "exotic" groups in the Ukrainian segment of Facebook, as well as in chats of Ukrainian online marketplaces for selling of second-hand stuff. This pseudo-news was supported by last year's photos from a warehouse fire in Tashkent (Uzbekistan).

A similar influence operations were launched several times throughout 2024 with no even signle significant modifications.

Case Study #3: Exploiting Ukraine’s Socio-Political Issues

•Clickbait headlines and manipulation of facts

•“Zero patient" publications: pressing on socio-political problems in Ukraine (corruption, impunity in government bodies, mobilization, energy, utility tariffs)

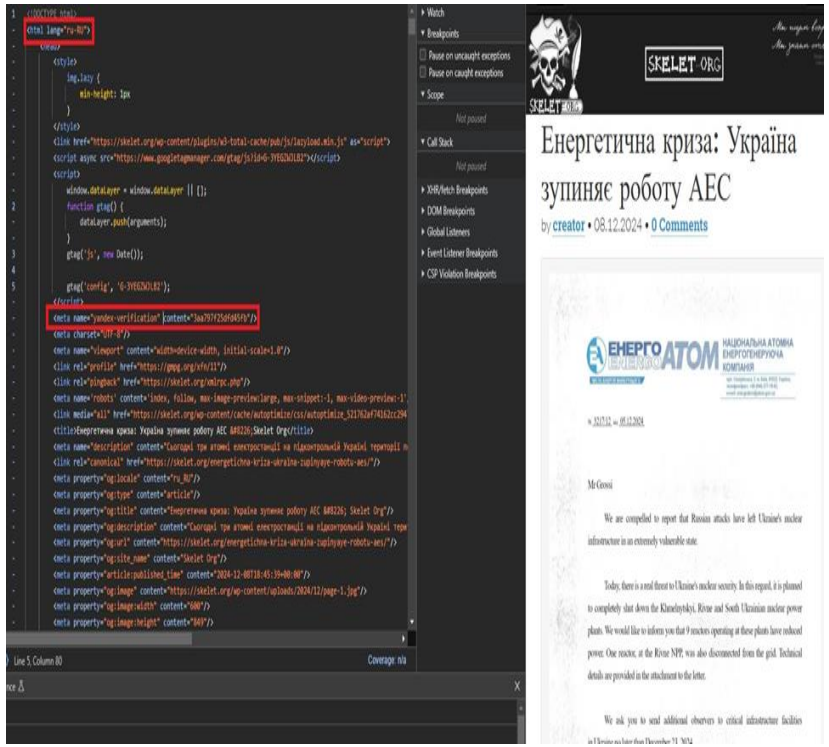
•Absence of comments under “breaking insights" – a trash site for the initial dissemination of disinformation online

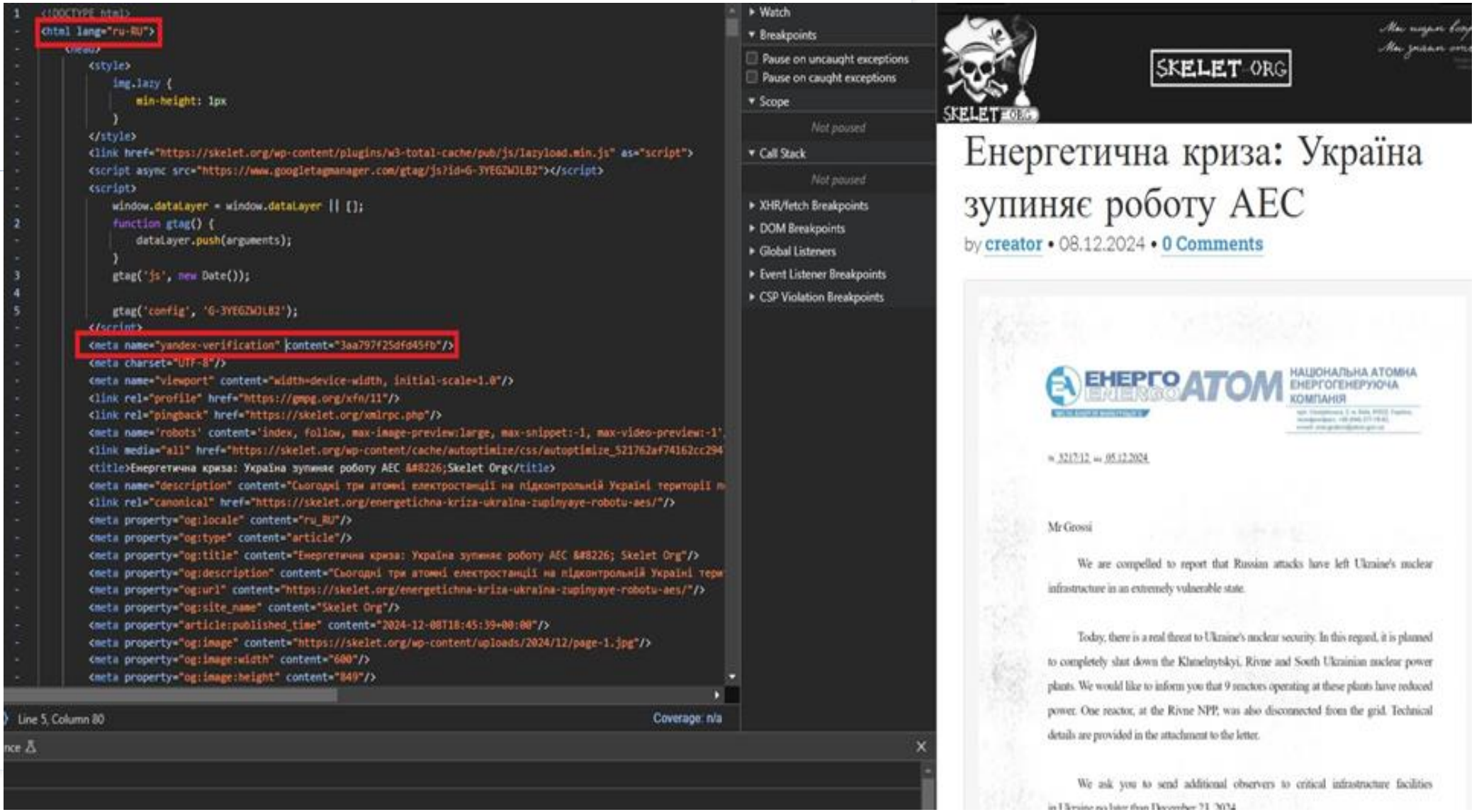
•Linguistic analysis of the text indicates signs of machine translation from Russian, while semantic and stylistic analysis reveals a deliberate promotion of destructive narratives that appeal to readers' primitive emotions and provoke aggressive reactions (frequent use of phrases like "energy crisis," "complete liquidation," "total corruption," "tariff increases," etc.)

•Complex configuration of the disinformation message – well-known facts about Ukraine's nuclear energy are intertwined with manipulative tools (presented in "Ukrainian" language, fake Energoatom letter, reinforcing manipulative claims with hyperlinks to other negative publications)

•Dissemination of similar text, but modified using AI

•Meta-data: language tag - lang="ru-RU" and name="yandex-verification" tag with a unique code content="3aa797f25dfd45fb" to improve the site's visibility in the Yandex search engine, especially for the Russian segment of the web.

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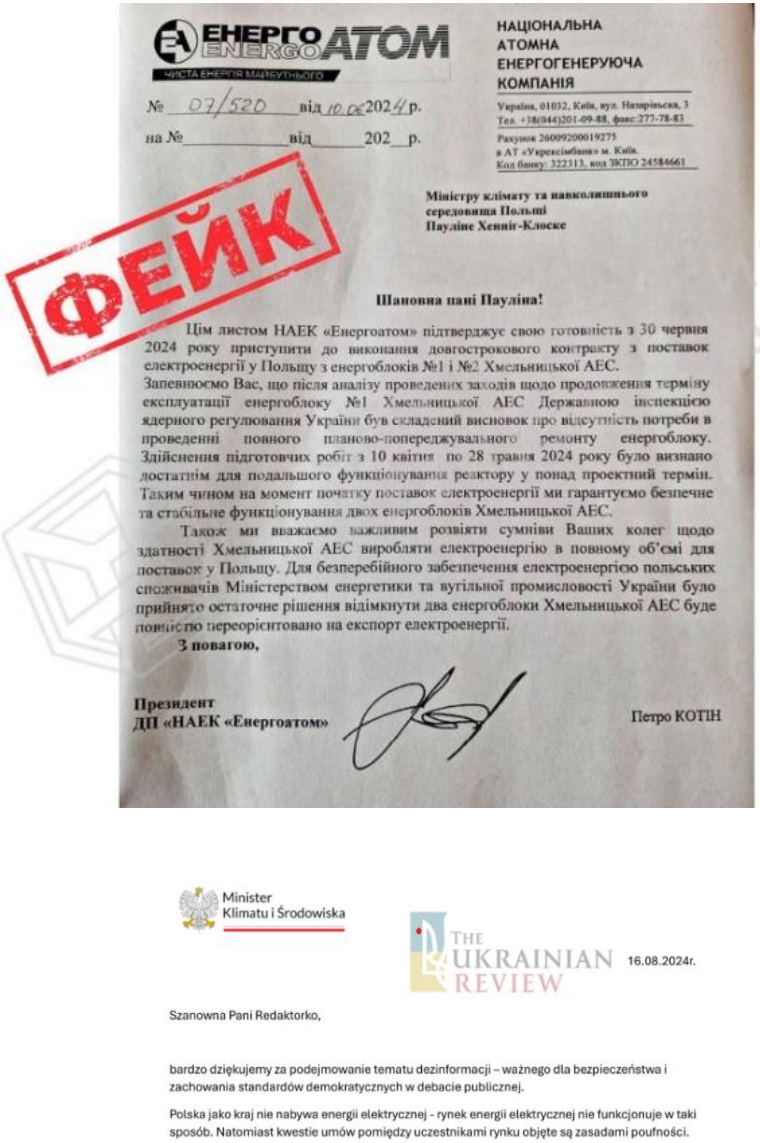
DOM Breakpoints
Global Listeners
Event Listener Breakpoints
CSP Violation Breakpoints
SKELET ORG
Енергетична криза: Україна зупиняє роботу АЕС
by creator • 08.12.2024 • 0 Comments
ЕНЕРГОАТОМ
НАЦІОНАЛЬНА АТОМНА ЕНЕРГОГЕНЕРУЮЧА КОМПАНІЯ
Mr Grossi
We are compelled to report that Russian attacks have left Ukraine's nuclear infrastructure in an extremely vulnerable state.
Today, there is a real threat to Ukraine's nuclear security. In this regard, it is planned to completely shut down the Khmelnytskyi, Rivne and South Ukrainian nuclear power plants. We would like to inform you that 9 reactors operating at these plants have reduced power. One reactor, at the Rivne NPP, was also disconnected from the grid. Technical details are provided in the attachment to the letter.
We ask you to send additional observers to critical infrastructure facilities

Case Study #4 Electricity sales abroad in the context of Russia's general disinformation campaign regarding the energy situation in the country

Analysis of the Fake Letter:

- The original source's account on social media platform X is not verified, meaning it's anonymous, and its content is anti-Ukrainian and provocative.
- The text of the "letter" contains obvious lexical and grammatical errors not characteristic of native Ukrainian speakers.
- The text is placed on a makeshift "letterhead" of the Company, where the official address contains a typo, indicating the forgers manually typed this part of the letterhead.
- The acting chairman of the board's signature is forged.
- The head of Energoatom does not send official correspondence to foreign government bodies, as this violates ethics and rules of international business correspondence.
- Errors in the official name of the Company and the position of its head: at the end of 2023, it was transformed from a "state enterprise" into a "joint-stock company" with a "chairman of the board" at its head, not a "president."



ЕНЕРГОАТОМ ENERGOATOM
ЧИСТА ЕНЕРГІЯ МАЙБУТНЬОГО

НАЦІОНАЛЬНА АТОМНА ЕНЕРГОГЕНЕРУЮЧА КОМПАНІЯ

№ 07/520 від 10.06.2024 р.
на № від 202 р.

ФЕЙК

Міністру клімату та навколишнього середовища Польщі
Пауліне Хенніг-Клоске

Шановна пані Пауліна!

Цім листом НАЕК «Енергоатом» підтверджує свою готовність з 30 червня 2024 року приступити до виконання довгострокового контракту з поставок електроенергії у Польщу з енергоблоків №1 і №2 Хмельницької АЕС.

Запевнюємо Вас, що після аналізу проведених заходів щодо продовження терміну експлуатації енергоблоку №1 Хмельницької АЕС Державною інспекцією ядерного регулювання України був складений висновок про відсутність потреби в проведенні повного планово-попереджувального ремонту енергоблоку. Здійснення підготовчих робіт з 10 квітня по 28 травня 2024 року було визнано достатнім для подальшого функціонування реактору у понад проектний термін. Таким чином на момент початку поставок електроенергії ми гарантуємо безпечне та стабільне функціонування двох енергоблоків Хмельницької АЕС.

Також ми вважаємо важливим розвіяти сумніви Ваших колег щодо здатності Хмельницької АЕС виробляти електроенергію в повному об'ємі для поставок у Польщу. Для безперебійного забезпечення електроенергією польських споживачів Міністерством енергетики та вугільної промисловості України було прийнято остаточне рішення відімкнути два енергоблоки Хмельницької АЕС буде повністю переорієнтовано на експорт електроенергії.

З повагою,

Президент
ДП «НАЕК «Енергоатом» Петро КОТІН

Minister Klimatu i Środowiska

THE UKRAINIAN REVIEW 16.08.2024r.

Szanowna Pani Redaktorko,

bardzo dziękujemy za podejmowanie tematu dezinformacji – ważnego dla bezpieczeństwa i zachowania standardów demokratycznych w debacie publicznej.

Polska jako kraj nie nabywa energii elektrycznej - rynek energii elektrycznej nie funkcjonuje w taki sposób. Natomiast kwestie umów pomiędzy uczestnikami rynku objęte są zasadami poufności.

Countermeasures Against Russian Disinformation In The Field Of Nuclear Energy:

- Automated, ongoing media monitoring and vulnerability detection
- Prompt fact-checking and debunking
- Educational initiatives at high school and university levels
- Public information campaigns targeting different audiences
- Coordination with partners to curb disinformation spread

Resilience – is a shared endeavor