MINERALS COUNCIL
SOUTH AFRICA

Standard Operating Procedure (SOP) for addressing cases of COVID-19: Prepared for members of the Minerals Council South Africa

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1 INTRODUCTION

In November 2019, the first cases of a new disease, later named COVID-19 by the World Health Organisation, were reported by health care workers from Wuhan, China. In December 2019, researchers from Wuhan reported a cluster of pneumonia cases caused by a novel coronavirus, which has since been named SARS-CoV-2. In January 2020 the World Health Organisation (WHO) declared the novel Corona Virus, COVID-19, as a Public Health Emergency of International Concern On 15th March 2020 the State President declared COVID-19 a national state of disaster in terms of the Disaster Management Act and, among others, prohibiting gatherings of more than 100 people. Despite these measures, the numbers of COVID-19 have increased dramatically.

To reduce the impact of COVID-19 outbreak conditions on businesses, workers, customers, and the public, it is important for all employers to plan, prepare and be ready for COVID-19. For employers who have already planned for influenza pandemics, planning for COVID-19 may involve updating those plans to address the specific exposure risks, sources of exposure, routes of transmission, and other unique characteristics of COVID-19 which is comparable to pandemic influenza viruses.

Employers who have not prepared for such pandemic events should prepare themselves and their workers as far in advance as possible of potentially worsening outbreak conditions. Lack of continuity planning can result in a cascade of failures as employers attempt to address challenges of COVID-19 with insufficient resources and workers who might not be adequately trained for jobs they may have to perform under pandemic conditions.

This SOP aims to assist the Minerals Council members in identifying those at risk and manage them, minimise the risk, prepare for workplace COVID-19 positive workers and in a worst-case scenario, the closing of operations. **Companies should adapt the SOP according to their risk assessment.**

The material contained in this publication is in the public domain from Department of Health (DOH), National Institute for Communicable Diseases (NICD), World Health Organisation (WHO) and other sites. The COVID-19 information is extremely dynamic and continuously evolving necessitating real-time staying informed by checking the WHO, National Health Laboratory Services (NHLS), National Institute for Occupational Health (NIOH), NICD and Department of Health (DOH) websites.

This SOP is a living document and will be reviewed and revised by the Health Policy Committee.

2 RISKS AND IMPLICATIONS OF COVID-19 INFECTION AT THE MINES

Similar to the rest of South African population, mine workers are at risk of being infected from the communities they live in or vice versa.

SARS-CoV-2 is a single stranded RNA virus from the Coronavirus family and is named COVID-19. It can be transmitted directly by inhalation of droplets from an infected individual's direct coughing or sneezing within a 1-2-meter radius. The infectious droplets fall onto surfaces and a person can be infected by touching these surfaces, and then touching one's eyes, nose or mouth. The virus is known to survive for up to 9 days on some surfaces. There is evidence that the virus is also airborne.

COVID-19 has been associated with rapid progression to acute respiratory distress syndrome, multiple organ failure and sometimes death. The case fatality ratio is currently unknown but estimated to be within a range of 0.5-4%. People with co-morbid illnesses such as respiratory and, cardiac conditions, diabetes, immune deficiency and the elderly are at most risk of becoming sick and dying.

According to the DOH published document on clinical management of confirmed COVID-19 diseases version 19th March 2020 which can be obtained from www.nicd.ac.za; the vast majority of COVID-19 cases will make a full recovery, though this may take several weeks particularly in severe cases.

The Mine Health and Safety Act 29 of 1996 (MHSA), assures the safe and healthy working conditions through authorised enforcements of standards and codes of practice developed under the Act. Section 5 of the act stipulates that the employer must as reasonably as practicable, ensure health and safety at the mines. COVID–19 is a new infectious agent that can impact negatively on the health of workers. Current risk assessments by mines need to be reviewed and updated utilising the hierarchy of controls to minimise the impact of COVID-19 on the workplace.

WHO classifies the risk of COVID-19 infection into 4 risk groups which are illustrated by Figure 1.

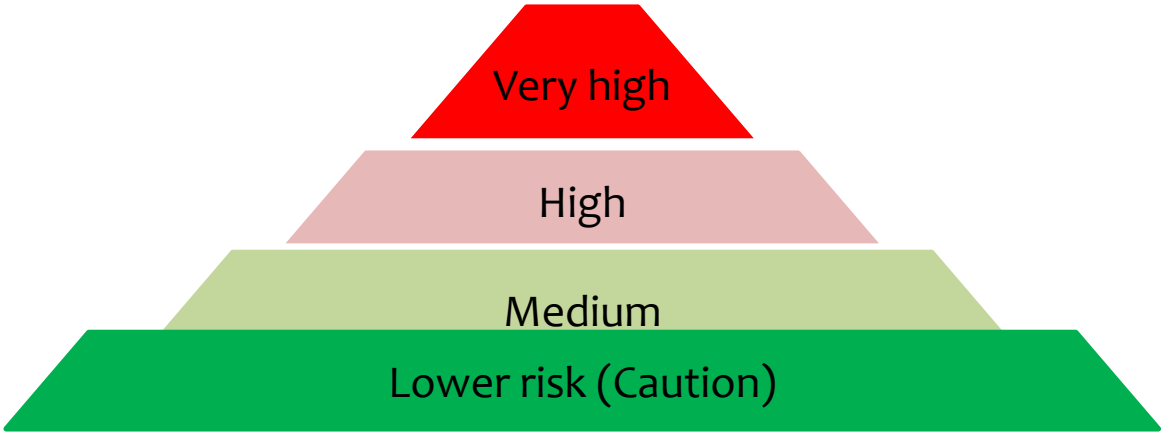

Figure 1: Occupational risk pyramid for COVID-19

a) Very high exposure risk

High potential for exposure to known or suspected sources of COVID-19 during specific medical, post-mortem, or laboratory procedures. Workers in this category include: Healthcare workers treating COVID-19 patients for an example doctors, nurses, paramedics, emergency medical technicians, laboratory personnel, morgue workers). The high-risk exposure activities include performing aerosol-generating procedures for an example intubation, cough induction procedures, bronchoscopies, or invasive specimen collection) on known or suspected COVID-19 patients.

b) High exposure risk

High exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19. Workers in this category include healthcare delivery and support staff for an example, doctors, nurses, and other hospital staff who must enter patients' rooms. In the case of the mining industry, medical surveillance procedures such as spirometry and breathalysers fall into this category.

Medical transport workers for an example ambulance vehicle operator moving known or suspected COVID-19 patients in enclosed vehicles. Mortuary workers involved in preparing for burial or cremation, the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death.

c) Medium exposure risk

Medium exposure risk jobs include those that require frequent and/or close contact with i.e., within 2 meters of people who may be infected with COVID-19, but it is unknown. In areas without ongoing community transmission, workers in this risk group may have frequent contact with travellers who may return from international locations with widespread COVID-19 transmission. In areas where there *is* ongoing community transmission, workers in this category may have contact with the general public for an example in schools and high-population-density work environments.

d) Low exposure risk

Low exposure risk jobs are those that do not require contact with people known to be or suspected of being infected with COVID -19 nor frequent contact (within 2 metres) with the general public. These workers have minimum contact with the general public and co-workers.

Taking the risks described above, an attempt is made in Table 1 to classify as examples, jobs in the industry according to the level of risk. ***This exercise can only be refined and concluded by companies depending on their individual circumstances.***

Table 1: COVID-19 Risk classification

Classification	Mine workers at risk
Very high risk	1. Intensive Care Unit 2. Occupational health practitioners conducting cough inducing procedures, e.g. spirometry. 3. HCWs collecting specimens for diagnosis of COVID-19, e.g. throat swabs. 4. Ambulance personnel that do intubation into trachea. 5. Health Care Workers (HCWs) that do removal of cardio-thoracic organs for compensation purposes.
High risk	1. HCWs that examine workers (at Occupational health centres, medical stations and other places with potential to be in contact with a COVID-19 patient (known and unknown), ambulance drivers transporting the sick

	2. Underground workers who are in crowded environments during waiting to be transported, during transportation to underground and to various working stations 3. Security staff at access points 4. Health and Safety reps during investigation of underground working sites 5. Hospital waste cleaners 6. Change room attendants
Medium risk	Security staff at entrances to facilities and mines Change room cleaners Laundry staff Occupational hygienists -personal sampling procedures Clerks working at occupational health centres Human resource practitioners that interact very closely with people
Low risk	Office workers Control room operators Office cleaners

The risk classification listed in Table 1 is done for purposes of providing relevant personal protective equipment.

Section 3, outlines steps to be taken to prevent infections.

3 PROCEDURES TO BE FOLLOWED TO PREVENT COVID-19 WORKPLACE INFECTIONS

This section describes steps that employers must undertake to prevent COVID-19 infection and stop its transmission to all occupational risk categories.

3.1 Develop a COVID-19 infection policy and procedures

The first step to prevent COVID-19 workplace infection is to develop a policy and procedures on COVID-19 management of suspected and positive cases, while at the same time developing infection controls.

The policy and procedures for immediately isolating people who have signs and/or symptoms of COVID-19 should:

- Include a 24-hour dedicated number which workers will use to reach the mine's dedicated health workers assigned to COVID-19
- Include procedures to report when sick or experiencing symptoms of COVID-19, what to do: for an example, self- monitoring, self-isolation and the duration. Currently, it takes up to 14 days for COVID-19 suspected cases to be either confirmed or cleared.
- Include how and where the 14 days isolation will take place for workers suspected of being infected with COVID-19.
- Include the sites where workers with suspected COVID-19 infection will be screened, diagnosed, treated. This should include what will lead to admission to a health facility.
- Include case information questionnaire for self-administration in cases of suspected cases who are self-isolating after being screen by the designated health care worker.

The criteria for a person under investigation (PU) are dynamic and change from time to time. For the latest criteria visit the NICD website: http://www.nicd.ac.za/diseases-a-z-index/covid-19/.

The following should be considered in the development of the COVID-19 policy:

1. The mine's leave policies
2. Provide adequate, usable, and appropriate training, education, and information material about business-essential job functions and worker health and safety, including proper hygiene practices and the use of any workplace controls (including PPE). Informed workers who feel safe at work are less likely to be unnecessarily absent. More education and communication material can be accessed from the Minerals Council:

https://www.dropbox.com/sh/bjvxhyqtydbuuwz/AADStI9FhM1j7Dyr4HatbyWBa?dl=0

3. Reduction of COVID-19 stigma amongst the suspected, the infected and their families. Regular and proactive communication with the public and at-risk populations can help to reduce stigma, build trust and increase social support and access to basic needs for affected workers and their families. Stigma can undermine social cohesion and prompt social isolation of groups, which might contribute to a situation where the virus is more, not less, likely to spread. Accurate information can help alleviate confusion and avoid misunderstandings. The language used in describing the outbreak, its origins, and prevention steps can reduce stigma. See WHO's Guide to preventing and addressing social stigma for more tips see webpage: https://www.who.int/docs/default-source/coronaviruse/covid19-stigma-guide.pdf.
4. Psychosocial support for the worker is important as COVID-19 has caused anxiety and panic across the world. Company Employee Assistance Programmes must provide support.

3.2 Prevent infection to workers and those visiting your operation

Steps all employers can take to reduce workers' risk of exposure to COVID-19.

i. Develop an infectious disease and response plan

- If one does not already exist, develop an infectious disease preparedness and response plan that can help guide protective actions against COVID-19.
- Stay abreast of COVID-19 news from Department of Health/NICD/WHO and consider how to constantly incorporate new recommendations and resources into workplace-specific plans.
- Establish links with NICD to ensure that you receive timeous information on the spread of COVID-19, and be part of the response team if possible.
- Workplace plans should consider and address the level(s) of risk associated with various worksites and job tasks workers perform at those sites. Such considerations may include:
    - Where, how, and to what sources of COVID-19 might workers be exposed, including the general public, customers, and
    - Co-workers; and sick individuals or those at particularly high risk of infection (e.g., local and international travellers who have visited locations with widespread

sustained (ongoing) COVID-19 transmission, healthcare workers who have had unprotected exposure to people known to have, or suspected of having, COVID-19.

- The plan should include non-occupational risk factors at home and in community settings for example, the need for social distancing.

ii. Prepare to implement basic infection prevention measures

For most employers, protecting workers will depend on emphasizing basic infection prevention measures. As appropriate, all employers should implement good hygiene and infection control practices, including:

- Promote frequent and thorough hand washing, including by providing workers, customers, and worksite visitors with a place to wash their hands. If soap and running water are not immediately available, provide alcohol-based hand rubs containing at least 60% alcohol.
- Encourage respiratory etiquette such as covering coughs and sneezes and if tissues are used, disposing them safely.
- Provide customers and the public with tissues and trash receptacles.
- Discourage workers from using other workers' phones, desks, offices, or other work tools and equipment, when possible.
- Maintain regular housekeeping practices including routine cleaning and disinfecting of surfaces, equipment, and other elements of the work environment. When selecting the cleaning agent, the following should be considered:
    - Its effectiveness which is dependent on the concentration, the ingredients; the storage conditions and the contact time:
    - The area where the cleaning and/or disinfecting agent will be used;
    - The availability of the Material Safety Data Sheet (MSDS)
    - Instructions to be followed for use, for an example, concentration, application method, contact time and the PPE required.

3.3 Procedure for medium to very high-risk exposure jobs

The previous section described what should occur at each working place for COVID-19. For medium to very high exposure jobs additional measures are required in the form of engineering and administrative controls and PPE.

i. Engineering controls

The generic engineering controls require the employer to take further steps to mitigate occupational exposure hazards. Engineering controls involve isolating workers from work-related hazards. In workplaces where they are appropriate, these types of controls reduce exposure to hazards without relying on worker behaviour and can be the most cost-effective solution to implement. The engineering controls for COVID-19 should be guided by risk assessment.

ii. **Administrative Controls**

Administrative controls require action by both the worker or employer. Examples of administrative controls for COVID-19 include:

a) Companies making their leave policies clear to their workers.
b) Brief workers, contractors and customers that if COVID-19 starts spreading to their community, anyone with even a mild cough or low-grade temperature (37.3 degrees Celsius) should get in touch with the 24-hour designated health care worker (s). This can be on-mine site or off-mine as defined in the policy.
c) Minimizing contact among workers, clients, and customers by replacing face-to-face meetings with virtual communications and implementing telework if feasible.
d) Where applicable and based on risk analysis, establishing alternating days or extra shifts that reduce the total number of workers in a facility at a given time, allowing them to maintain distance from one another while maintaining a full onsite work week.
e) Discontinuing nonessential travel to locations with ongoing COVID-19 outbreaks. Regularly check WHO travel warning levels.
f) Provide COVID-19 screening, including temperature checks
g) Provide Personal Protective Equipment (PPE) for medium to very high-risk exposure groups. Examples of PPE include: gloves, goggles, face shields, face masks and respirators. The COVID-19 may change depending on geographic location, updated risk assessments for workers, and information on PPE effectiveness in preventing the spread of COVID-19. Employers should check the DOH, NIOH and NICD websites regularly for updates about recommended PPE. Annexure 2 for recommendations

4 PROCEDURES TO BE FOLLOWED BY A MINE, IN CASE OF A SUSPECTED COVID-19 CASE

A person suspected of COVID-19 becomes a 'person under investigation' (PU) when they have sudden onset of at least one of the following: a cough, sore throat, shortness of breath or fever and have in the past 14 days prior to onset of these symptoms were in close contact with a confirmed COVID-19, or have travelled to areas with COVID-19. See definition of PU at http://www.nicd.ac.za/diseases-a-z-index/covid-19/

The mine should proceed as follows:

a. The worker must contact the 24-hr designated health care worker.
b. Prompt identification and isolation of potentially infectious individual(s).
c. Depending on the mine procedure, the individual will at home or requested to go to the designated site (on mine or other) as defined in mine's the policy for screening.

b) If the person fulfils the latest case definition for suspected COVID-19 case, a 'person under investigation' (PU), proceed to test them

c) The health care worker should clinically check if the individual is well enough to be sent home to self-isolate. If so, discuss the patient information sheet, see annexure 2 as an example.

d) If the individual is not, refer to the designated health facility identified in the policy for the 14-day isolation.

5 RISK MITIGATION MEASURES TO BE UNDERTAKEN FOR CASE(S) OF COVID 19 INFECTION.

The WHO has declared COVID-19 an occupational respiratory disease. In cases of a definite case(s) of COVID-19 infection whether the diagnosis is made by a private laboratory or by the NICD, the steps to be followed include managing the infected patient and tracing the contacts.

The steps to be followed are:

i) Move infectious people to a location away from workers, customers, and other visitors. Although most worksites do not have specific isolation rooms, designated areas with closable doors may serve as isolation rooms until potentially sick people can be removed from the worksite. **(This room should have been designated or identified earlier if not mentioned in preparatory section**).

ii) To prevent further transmission, restrict the number of personnel entering isolation areas.

iii) To limit spread of the respiratory secretions of a person who may have COVID-19, provide a face mask and ask the person to wear it. Note: A face mask (also called a surgical mask, procedure mask, or other similar terms) on a patient or other sick person should not be confused with PPE for a worker; the mask acts to contain potentially infectious respiratory secretions at the source (i.e., the person's nose and mouth).

iv) Report the case to the DOH using its reporting forms. The same report should be submitted to the to the Department of Minerals of Resources and Energy and the Minerals Council.

v) Report the case to the COIDA Commissioner or Rand Mutual Assurance, where applicable.

vi) Commence contact tracing immediately and plan the 14-day self-quarantine, the accordance with the stipulated DOH. (The tracing is for workers and their family who were in contact with them).

1. Keep a record list of these contacts
2. Have patience with regard to obtaining a healthcare provider's note for workers who are sick with acute respiratory illness to validate their illness or to return to work, as healthcare provider offices and medical facilities may be extremely busy and not able to provide such documentation in a timely manner.
3. Be aware of workers' concerns about safety, health, and other issues that may arise during infectious disease outbreaks. Provide adequate, usable, and appropriate training, education, and informational material.
4. Work with insurance companies (e.g., those providing employee health benefits) and state and local health agencies to provide information to workers about medical care in the event of a COVID-19 outbreak.

vii) Use special precautions associated with Biosafety Level 3 when handling specimens from known or suspected COVID-19 patients.

6 ADVICE ON THE STAGES AT WHICH CONSIDERATION SHOULD BE GIVEN TO SHUTDOWNS

The consideration of a shutdown is multifactorial and will be depended on the location of the operation, the surrounding communities' COVID-19 situational analysis which changes daily, where the workers reside (hostels or community) and whether the mines commenced with strategies to prevent infection and transmission since the first case was announced. The shutdown will also be dependent on government policies which are dictated by the spread of transmission, whether the

proposed treatment is effective to prevent morbidity and mortality; and whether a vaccine is available.

Based on the daily changing scenario at the operation, the following are considerations for closing a mine section or operation proactively:

a. A mine section/working area should shut down if it has an increasing number of confirmed cases of COVID-19.
b. A mine operation should shut down if there are multiple clusters and/or increasing numbers of confirmed COVID-19 cases.
c. A case of COVID-19 death at a section

RESOURCES

Telephone hotline

NIOH OHP HOTLONE: 0800 11 11 32

NICD Public hotline: 0800 02 99 99

NICD HCWs hotline: 082 883 9920

DOH WHATSAPP: 060 012 3456

COVID-19 Workplace queries: info@nioh.ac.za

How to stay informed:

Find the latest local information

DOH: www.health.gov.za

NICD: www.nicd.ac.za

http://www.nicd.ac.za/wp-content/uploads/2020/02/Guidelines-for-case-finding-diagnosis-management-and public-health-response-in-South-Africa.pdf

Minerals Council South Africa: https://www.dropbox.com/sh/bjvxhyqtydbuuwz/AADStI9FhM1j7Dyr4HatbyWBa?dl=0

National Health Laboratory Services: www.nhls.gov.za

Department of Employment and Labour guidelines to deal with Covid-19 at workplaces:

www.labour.gov.za

Find the latest information from WHO on where COVID is spreading:

https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/

Advice on guidance from WHO on COVID-19

https://www.who.int/emergencies/diseases/novel-coronavirus-2019

https://www.epi-win.com/

Other resources

www.osha.gov

www.cdc.gov/niosh

Annexure 1: Recommendations for PPE COVID-19 selection

All types of PPE must be:

1. Selected based upon the hazard to the worker.
2. Properly fitted and periodically refitted, as applicable (e.g., respirators)

- Consistently and properly worn when required.
- Regularly inspected, maintained, and replaced, as necessary.
- Properly removed, cleaned, and stored or disposed of, as applicable, to avoid contamination of self, others, or the environment.

3. Workers, including those who work within 2 meters of patients known to be, or suspected of being, infected with COVID-19 and those performing aerosol-generating procedures, need to use respirators:

- National Institute for Occupational Safety and Health (NIOSH)-approved, N95 filtering facepiece respirators or better must be used in the context of a comprehensive, written respiratory protection program that includes fit-testing, training, and medical exams. See OSHA's Respiratory Protection standard, 29 CFR 1910.134 at www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134
- When disposable N95 filtering facepiece respirators are not available, consider using other respirators that provide greater protection and improve worker comfort. Other types of acceptable respirators include: a R/P95, N/R/P99, or N/R/P100 filtering facepiece respirator; an air-purifying elastomeric (e.g., half-face or full-face) respirator with appropriate filters or cartridges; powered air purifying respirator (PAPR) with high-efficiency particulate arrestance (HEPA) filter; or supplied air respirator (SAR).
- Consider using PAPRs or SARs, which are more protective than filtering facepiece respirators, for any work operations or procedures likely to generate aerosols (e.g., cough induction procedures, some dental procedures, invasive specimen collection, blowing out pipettes, shaking or vortexing tubes, filling a syringe, centrifugation).
- Use a surgical N95 respirator when both respiratory protection and resistance to blood and body fluids is needed.
- Face shields may also be worn on top of a respirator to prevent bulk contamination of the respirator. Certain respirator designs with forward protrusions (duckbill style) may be difficult to properly wear under a face shield. Ensure that the face shield does not prevent airflow through the respirator.

Annexure 2: An example of a suspected COVID-19 patient who is being sent home to wait for result.

Example of a patient information sheet for use with suspected cases who are being sent home to await test results for SARS-CoV-2 (COVID-19).

While awaiting test results for COVID-19 (the novel coronavirus), you have been assessed as being medically well enough to be managed at home.

However, please consider yourself as potentially infectious until the final results are available. You will need to abide by the following:

- You should quarantine yourself at home. Don't go to work, avoid unnecessary travel, and as far as possible avoid close interactions with other people.
- You should clean your hands with soap and water frequently. Alcohol-based sanitizers may also be used, provided they contain at least 60% alcohol.
- Do not have visitors in your home. Only those who live in your home should be allowed to stay. If it is urgent to speak to someone who is not a member of your household, do this over the phone.
- You should wear a facemask when in the same room (or vehicle) as other people.
- At home, you should stay in a specific room and use your own bathroom (if possible). If you live in shared accommodation (university halls of residence or similar) with a communal kitchen, bathroom(s) and living area, you should stay in your room with the door closed, only coming out when necessary, wearing a facemask if one has been issued to you.
- You should practice good cough and sneeze hygiene by coughing or sneezing into a tissue, discarding the tissue immediately afterwards in a lined trash can, and then wash your hands immediately.
- If you need to wash the laundry at home before the results are available, then wash all laundry at the highest temperature compatible for the fabric using laundry detergent. This should be above 60° C. If possible, tumble dry and iron using the highest setting compatible with the fabric. Wear disposable gloves and a plastic apron when handling soiled materials if possible and clean all surfaces and the area around the washing machine. Do not take laundry to a laundrette. Wash your hands thoroughly with soap and water after handling dirty laundry (remove gloves first if used).
- You should avoid sharing household items like dishes, cups, eating utensils and towels. After using any of these, the items should be thoroughly washed with soap and water.
- All high-touch surfaces like table tops, counters, toilets, phones, computers, etc. that you may have touched should be appropriately and frequently cleaned.
- Monitor your symptoms - Seek prompt medical attention if your illness is worsening, for example, if you have difficulty breathing, or if the person you are caring for symptoms are worsening. If it's not an emergency, call your doctor or healthcare facility at the number below. If it is an emergency and you need to call an ambulance, inform the call handler or operator that you are being tested for SARS-CoV-2.

While awaiting the results, if your symptoms worsen:

- Call:

- Or come to:

For more information on COVID-19, see the NICD's FAQ page:

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